

LOUISIANA  
**Conservationist**

September/October 1997

75 Years 1923 - 1997





James H. Jenkins, Secretary

## Comments

The recent legislative session was hectic for those of us trying to protect the interests of Louisiana's outdoor recreationists. There were some 5,000 bills introduced and about 300 pieces of legislation that directly impacted the Department of Wildlife and Fisheries.

Imagine the task of trying to track all that legislation through committees and onto the floors of the House and Senate. This maelstrom was complicated by the necessity of rooting out "hidden" amendments tacked onto seemingly innocuous bills.

All in all, I believe we brought home a mixed bag composed primarily of good law. Also included, however, were defenses against legislation damaging to the department.

We managed to convince legislators to defeat legislation which would have transferred the oyster industry from Wildlife and Fisheries to the jurisdiction of the Department of Agriculture. This department had its very genesis in the oyster industry as the Louisiana Oyster Commission, created in 1872. No agency can match this department's experience, depth of research and established communications with the oyster industry. We are steadily improving that relationship and the legislature finally concluded that regulation and enhancement of the oyster industry should remain with this department.

We also overcame attempts to transfer the department's entire Enforcement Division away from Wildlife and Fisheries and make it a part of the Louisiana State Police. We saw that effort as a serious mistake. Wildlife Agents require specialized training very different from the training afforded State Troopers. We already work closely with the State Police, who make a solid contribution to our training academy by providing basic law enforcement training and some specialized training. Our agents, however, require additional training in areas such as waterfowl identification, boating safety and survival techniques, and the complex area of commercial fishing regulations. In addition, our Enforcement Agents routinely work alone in a unique environment far different than a State Trooper's usual work environment.

That legislation would also have wrested authority for fish and wildlife law enforcement policy away from the Wildlife and Fisheries Commission and the department.

All the problems did not disappear with the close of the session, however. We are now facing a law passed during a preceding legislative session allowing the establishment of commercial "deer farming" by private individuals. This legislation allows a landowner to erect a deer fence around his property and claim any wild deer thus captured as his own. Wild deer trapped in this manner could then be slaughtered for meat or become victims of "canned hunts" or "trophy shoots" with little or no provision for sporting concepts such as fair chase or other ethical considerations. Although the author of this legislation has stated that the impounding of wild deer belonging to the people of Louisiana was not his intent, it will take two more years to get the legislation revised. This battle has just been joined.

We are preparing a wrap-up of all legislation affecting this department passed in the recent session which actually becomes law. You can look for it in the November/December issue of this magazine.

In closing, I hope you will take the time to carefully read "The Best Laid Plans: What happens when conservation efforts work too well?" (page 4). This article is of extreme importance and describes the advent of an ecological disaster. You will hear far more about it in the near future.

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The *Louisiana Conservationist* is published bimonthly except January/February by the Louisiana Department of Wildlife and Fisheries, 2000 Quail Drive, Baton Rouge, LA 70808, 504/765-2918. Second-class postage paid at Baton Rouge, LA and additional mailing offices. POSTMASTER: send address changes to Louisiana Conservationist, P.O. Box 98000, Baton Rouge, LA 70898.

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This public document was published at an average cost of \$51,751.60. Approximately 40,000 copies of this document were published at an average printing cost of \$23,910.44. The total cost of all printing of this document averages \$23,910.44. This document was published for Department of Wildlife and Fisheries, 2000 Quail Drive, Baton Rouge, Louisiana, 70808, by Harvey Press, Inc., to provide information on outdoor opportunities in Louisiana. This material was printed in accordance with the standards for printing by state agencies established pursuant to R.S. 43:31. Printing of this material was purchased in accordance with the provisions of Title 43 of the Louisiana Revised Statutes.

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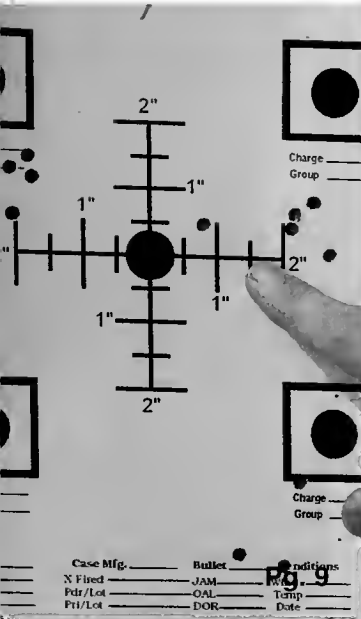
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# The Best Laid Plans



## WHAT HAPPENS WHEN CONSERVATION EFFORTS WORK TOO WELL?

BY ROBERT F. ROCKWELL, KENNETH F. ABRAHAM AND ROBERT L. JEFFERIES

Each spring and fall vast, undulating skeins of snow geese pass overhead, noisily making their way north to arctic and subarctic breeding grounds or south to wintering areas. Who could fail to be awed at seeing thousands of these striking birds speeding powerfully overhead or rising in a massive swarm from a freshly harvested field? For many of us, their migrations herald the arrival of spring and fall each year. It's not surprising that so many biologists, wildlife managers, hunters, naturalists, and other concerned citizens have committed so much time and effort to preserving these birds. Snow geese are part of our natural heritage and their absence would be unthinkable.

Thanks to the adaptability of these birds and to conservation efforts in the United States and Canada, the snow goose population in the central portion of North America has grown nearly 300 percent since the 1960s. Researchers estimate that this population, which breeds primarily along the shores of Hudson Bay and Foxe Basin and winters from Iowa and Nebraska south to the Gulf Coast, now numbers more than three million birds in midwinter. At a time when many species of birds are declining and others are becoming extinct, you would think that the snow goose's burgeoning population would be cause for celebration. Instead, scientists are concerned that the increasing numbers of geese may soon lead to an ecological catastrophe as these voracious feeders turn the delicate arctic habitat they inhabit into a barren wasteland.

How did this dire situation come about? And what can be done to alleviate the problem? To understand this dilemma, it is important to trace this species' long-term history and see what a profound impact human actions have had on their numbers. Most snow geese in central North America originally wintered in brackish marshes along the Gulf Coast in Texas and Louisiana. Destructive feeders, they grubbed-out and consumed tubers and roots of marsh vegetation with their large, serrated beaks. But the food resources in these natural marshes were finite and acted as a control on the goose population. As the numbers of geese exceeded their available food supply, the birds' mortality rate would increase, reducing their population to a level that their traditional wintering areas could support.

In the two decades following World War II, many coastal marshes were lost or severely degraded through increased commercial development. At the same time, however, farmers increased the production of rice crops on private lands adjacent to the birds' traditional coastal wintering grounds. These agricultural areas provided at least a million acres of wintering habitat with abundant food, not only in the post-harvest rice stubble, but in adjacent soybean fields and pastures. The winter populations of snow geese began to increase and the birds extended their range northward, feeding on rice fields up to 150 miles inland from the coast.

Converting inland grasslands to agricultural croplands was an absolute boon for the geese. The crops provided the

ever-increasing numbers of geese with a large food subsidy, so that the depletion of the winter food supply in their traditional winter habitats no longer acted as a population control on the birds. Their winter mortality decreased significantly, their body condition in spring improved, and their reproduction rate increased markedly.

Federal and state agencies further expanded the winter range and migration staging areas of the snow geese by developing national and state wildlife refuges on the northern prairies. These refuges were intended to restore wetland habitat for breeding and migrating waterfowl. Wildlife managers at the refuges manipulated crops to provide food for the birds, a practice that augmented the large food subsidy the geese were already reaping from private lands where agricultural activity had also increased.

Although hunting pressure was initially intense in areas adjacent to the refuges, political lobbying in the 1970s brought changes, including the establishment of no hunting zones and restricted goose harvests. The combined effects of less hunting pressure and increased food subsidies contributed to a nearly 50 percent reduction in adult mortality (from 22 percent to 12 percent). This reduction was also influenced by a decline in both the number of hunters and the number of days they hunted.

The size of the winter snow goose population increased dramatically as it readjusted to the extensive increase in the quantity and quality of the foraging habitat, both on their wintering grounds and along their migratory flyways. The growth of the goose population in central North America was stimulated further during the late 1960s and 1970s by a temporary warming trend in the Hudson Bay and Foxe Basin nesting region, which resulted in an earlier spring melt, earlier nesting, and increased reproductive success.

Much of our information on the growing snow goose population in central North America and the birds' effect on their coastal tundra breeding habitat comes from a long-term study of the goose colony at La Pérouse Bay near Churchill, Manitoba, in Canada. When studies began there in 1968, approximately 2,000 pairs of snow geese were nesting in the willow and lyme grass fringes of the coastal salt-marsh. By 1990, the colony had grown to 22,500 pairs — an average annual increase of nearly eight percent. Although much of this account is drawn from that study, research at several other nesting sites indicates that the results are applicable on a broad scale.

Like most arctic breeding geese, snow geese accumulate the nutrient reserves they will need to produce and incubate their eggs during their spring flight north. They also feed at the breeding colony while they search for a nest site and begin laying eggs. Because the geese arrive before the vegetation has begun growing, they initially feed by grubbing below the surface to get the nutrients stored in the roots and rhizomes of plants. By mid-June, grasses and sedges are growing, and the adult geese and their broods of goslings graze on the above-ground portion of their salt-marsh forage plants.

As the population at La Pérouse Bay grew, the overall demand for food throughout the season increased. But grubbing had the most serious impact on the ecosystem. When adults grub for roots and rhizomes early in the season, they destabilize the thin

**At the La Perouse Bay study area, researchers erected goose-proof barriers in selected areas to document the effects of geese on the habitat (photo on left). Inside the barrier, lush vegetation; outside the barrier wasteland. Grubbing by geese sometimes causes salts to move to the soil surface, killing many plants. Below shows a pond formed by erosion from grubbing geese.**



arctic soil so that melting snow and spring rains can cause erosion. In some instances, ponds form and are then enlarged each year as the birds grub along the edges. As the number and size of these ponds increase, the amount of available forage declines.

The damage caused by the birds' grubbing at La Pérouse Bay was made worse by a series of late spring seasons in the high arctic. Geese from more northern colonies delayed the last portion of their migration and continued to feed at southern colonies. In 1984, for example, more than 100,000 staging geese destroyed much of the vegetation on one of the main brood-rearing areas on the east side of La Pérouse Bay in less than three days.

Beyond simply removing plants, foraging by snow geese — especially



grubbing — leads to other changes in the coastal ecosystem. When the vegetation is removed, evaporation from the soil surface increases and inorganic salts from underlying sediments move to the surface, raising soil salinity. As salinity increases, the growth and survival rates of forage plants in the coastal marsh decline. Willows and other vegetation immediately adjacent to the marsh begin dying as the process intensifies. Ponds and bare soil dry out and the surfaces crack. Ultimately, all that remains is a barren forest of dead willows and a few nearly inedible plants that are capable of surviving in soil with a salinity level that sometimes reaches three times that of sea water.

Thus, the chain of events that began with a single species in a simple food chain rapidly consuming the limited food resources ultimately leads to the deterioration of the entire ecosystem. The unfortunate consequence of this phenomenon (called a trophic cascade) is that staging, foraging, and nesting habitat are lost — not just to snow geese but to all the other species sharing the marsh and adjacent areas. These include other species of waterfowl, shorebirds, marsh birds, upland birds, and numerous passerines.

For snow geese, the decline in the quantity and quality of foraging habitat at La Pérouse Bay has led to decreases in the size and survival rate of juvenile geese and a reduction in the reproductive success of the adults that continue to use the traditional nesting and foraging areas. You might suppose that this would slow the growth of the goose population and ultimately place a cap on its size, much as the limited winter food resources in the Gulf Coast marshes once did. Unfortunately, this has not been the case. As conditions worsen, increasing numbers of adults are moving to adjacent areas to nest and raise their goslings in coastal marshes that are not yet as degraded as their traditional breeding sites. The success of these dispersers is sufficiently high that the more widely distributed population continues to grow. With it, the process of population growth, habitat degradation, and dispersal continues to spread across an ever-expanding geographic area.

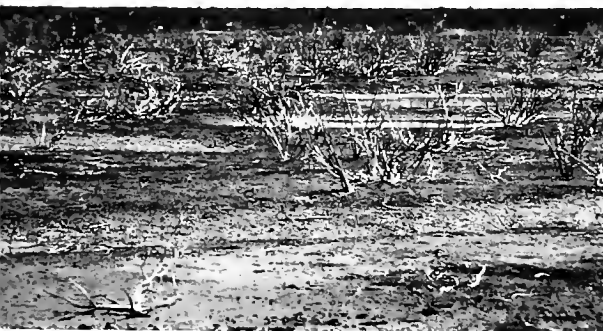


**Voracious feeders, snow geese grub out plants by the roots, causing serious damage to delicate arctic plant communities.**

**A single species in a simple food chain consuming the food sources in a habitat too rapidly leads ultimately to the deterioration of the entire ecosystem.**

In addition to La Pérouse Bay, there are at least three other sites on Hudson and James Bays where habitat deterioration and trophic cascades have also begun. This process will continue until adequate forage no longer exists for the members of the dispersing goose families. By that time, miles of coastline and the habitat of numerous other species of birds will have become seriously degraded. And because of the high salinity, cold temperatures, and short growing seasons in these areas, it will take decades for these habitats to recover.

The most hopeful aspect of this saga is that the problem may have been identified in time to take action that can minimize further destruction of the sensitive arctic coastal ecosystems. The United States and Canada have established a joint habitat study group composed of researchers and land managers to examine the ecological impact of geese and develop a plan to reduce the numbers of this successful species to a level that does not threaten the ecological integrity of its breeding habitat. Proposals on the table include increasing traditional egg collecting by Native Americans, liberalizing hunting regulations for snow geese, and establishing special hunting seasons. The success of these actions - and even whether they can be implemented at all - depends on the willingness of a large and diverse community of scientists, wildlife managers, and naturalists to cooperate in the endeavor. One thing that we must all do is to try to alter our traditional



focus on the conservation of single species, whether they are rare or abundant.

The dilemma of the snow goose is not simply that there are too many geese, but that these birds are only one member of a diverse and fragile arctic ecosystem. That ecosystem and all its members require and deserve our attention.

*The authors are all members of The Hudson Bay Project, a charitable corporation dedicated to studying coastal arctic tundra ecosystems. Robert F. Rockwell is an ornithologist at the American Museum of Natural History, Kenneth F. Abraham is a biologist at the Ontario Ministry of Natural Resources, and Robert L. Jefferies is a botanist at the University of Toronto. (This article was published in *Living Bird*, Winter 1997, Volume 16, No. 1.)*

# OFF-SEASON SHOOTING



## *Tips on marksmanship*

STORY & PHOTOGRAPHY BY LYLE M. SONIAT, PH.D.

**W**hether you are learning to swing a golf club, swim or play the piano, there are a number of basic steps that should be learned to become proficient. Learning to shoot a rifle well is no different. It is an acquired skill that requires a step-by-step approach to mastery. Those basics will be repeated every time you shoot, so it is best to learn them. There are a number of tips I've picked up from several years of competitive shooting that can be applied to shooting accurately for hunting.

Off-season shooting keeps you 'tuned' as well as your equipment. Besides, it gives you an opportunity to utilize your investment in firearms beyond the few weeks of hunting season. It's also a great time to

instruct your kids on safe gun handling, ballistics and the capabilities of firearms.

The first item on any gun "how-to" list is safety. Whenever you're involved with the shooting sports, you assume the responsibility for the safety of others. It is critically important that you learn and practice safety rules. Besides knowledge of the features and capabilities of your firearm, attitude is perhaps the most important ingredient for a safe outing. Being alert and aware of what your firearm can do is more important than just having good shooting skills. Good marksmanship includes practicing safety every time you shoot.

With that caution, let's consider some of the things that you can do to increase marksmanship skills. Some of these points may

*"Off-season shooting keeps you 'tuned' as well as your equipment. Besides, it gives you an opportunity to utilize your investment in firearms beyond the few weeks of hunting season."*

seem basic, but I'm amazed at how the little things are often overlooked by regular shooters. A clean firearm is a given for good performance and accuracy. How often you should clean your gun depends a lot upon the condition of your barrel and how much you shoot. A barrel that has a smooth bore will not accumulate as much lead or copper fouling as a new or rough barrel. Roughness inside the bore will shave copper and lead from each round and alter the bullets flight. This is often a problem with a new rifle

Benchrest shooters break in new barrels by cleaning after each shot for the first 10 shots. Then they shoot three shot groups and clean for several repetitions; than five shot groups and clean. This may be more procedure than you're willing to do for a hunting rifle, but his break-in process will reduce the barrel fouling and cleaning time required to insure top accuracy. And once you've done it, you enjoy the benefits as long as you own the rifle.

Benchresters have concocted an effective blend of two parts Shooter's Choice with one part Kroil as a cleaning solvent. It doesn't smell as good as Hoppe's #9, but it's worth the trouble to fix the potion. It does a great cleaning job and isn't corrosive to your bore.

Let's assume you've just purchased a new .308 Model 700 Remington and you want to select a good deer cartridge. How can you proceed if you don't handload? Don't assume that the load that works in your brother-in-law's gun is the best for your rifle. Even identical rifles will prefer different ammo. A visit to any well stocked sporting goods store will reveal several cartridge brands from which to choose.

Making your selection more challenging, you're likely to see a variety of bullet weights ranging from 130 grains to 180 grains. Then there's bullet design-boat-tails, soft points, hollow points, ballistic tips, silver tips — the list is long.

A good place to start narrowing your choice is to remember the intended quarry — deer. Several bullet designs will work, but the pointed soft point is a favorite. And for deer, the 150 grain .308 will do just fine. Select two or three boxes of different brands of 150 grain soft points. The purpose is to see which ammo groups best in your rifle.

From the bench, you'll notice that all of the different makes of factory cartridges probably shoot to a different spot on your target. That's o.k., for now we're interested in just getting the smallest group on paper of at least five shots. To make this experiment yield data that we can rely on, we need to make sure that we don't introduce any confounding variables.

Minimizing those extraneous factors will help determine which of the cartridges is the most accurate for your rifle. For example, just holding your gun a different way will cause the bullet to hit the target in a different spot. Shoot one or two fouling shots as clean barrels tend to shoot to different spots as well. This will also help you warm up and assist in establishing a consistent hold.

Another variable to avoid is having a different sight picture. Some people mistakenly believe that just having the scope's crosshairs — the "X" — on the target is all that's necessary to successfully hit the bull. Wrong. If the crosshairs are off-center in your scope picture, the point of impact will likely vary. Placing your face differently on the stock, or even holding it tighter (or looser) than previous shots can affect consistency.

Try shooting the different loads you selected at the same type of target under similar wind and light conditions. Five shot groups on each target will yield some useable data. Carefully log which ammo was used for each target. Shooting five shots without getting up each time will help you maintain a consistent hold.

I once helped a friend "find the best load" for his new custom .243. For three or four shots the rifle would have holes touching at 100 yards, but there would always be one or two nagging flyers that couldn't be blamed

Any well stocked sporting goods store will offer a variety of cartridge brands from which to choose. (Courtesy of Jim's Firearms, BR, LA)





on the wind. Then I noticed that, as he fired, the recoil and his movement in reloading/chambering, caused his front rest to worm it's way forward. As he shot the next round, the rifle was resting on the sling swivel. Another shot and the rifle was resting on the barrel.

Someone (probably one of those types with lots of pencils in their shirt pocket) took some high speed photographs of a rifle barrel as it recoiled. He was able to show that the barrel steel in rifles flexes in a wave pattern in recoil. If the rifle isn't able to flex in the same pattern each time, the bullet will exit the bore at a different place. As you can visualize, this will cause your bullet to impact at a different spot on your target. The point is, be consistent in how you hold and rest your firearm each time you fire. A different hold (and rest) will likely result in an errant shot.

Another related factor is vertical stringers in your groups. If your present rifle groups shots in a vertical dispersion (versus a random circular cluster) its a sign that your gun barrel is not flexing consistently. As your barrel heats and expands from firing, it may begin to touch a high point in the forearm area of your wood stock. In Louisiana, with our high humidity, this is a common problem. As the wood stock absorbs moisture, the wood swells, creating a high spot that touches the barrel causing your shots to string vertically. Be aware that if you're caught in a rainstorm while hunting, your wood stock is going to swell. Guess what will happen to your carefully sighted-in rifle? You guessed it, most likely it will shoot to a different point-of-aim. Check this out for yourself. If you can slide a dollar bill between your barrel and your forearm up to the receiver, you're probably ok. However, if it hangs up, you've located another detriment to accuracy. Don't sell 'ole Betsy' just yet. Most gunsmiths can fix this by slightly routing the forearm, then glass bedding your action to the receiver. If you are so inclined and comfortable with tools, this is a do-it-yourselfer. The same gun store where you got the ammo should be able to steer you in the right direction for a bedding kit.

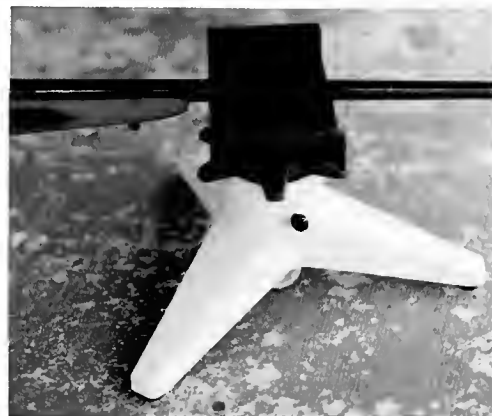
Back to our test. Walk downrange and check out your different groups. Chances are, if you were consistent, you'll see that one brand of ammo had a smaller group on

paper. If your rifle liked all of the choices equally well consider yourself lucky. If it didn't get at least a two inch, five shot group at 100 yards, try some other brands. If you think the problem was your shooting, or the wind was gusty, or there was a slight earth tremor just as you shot that caused that flyer— try that particular load again. If you can't get at least two to three inch groups off the bench with a hunting rifle and you've done your homework correctly, I'd consider trading it. There's likely a problem somewhere with the gun or the scope. Now take your "best" load and sight in your scope about two inches high at 100 yards.

Consistency is one key to accuracy; the hold, sight picture, trigger release — all must be consistent to eliminate wandering shots. Then, just as you think that's all there is, you guessed it, there's more — lots more. Target shooters are now shooting long range competitions around the country at 1,000 yards. Presently, the record group size for this distance is **under four inches for 10 shots!** Some folks can't do that at 100 yards. This amazing feat was not accomplished without eliminating those factors that negatively affect accuracy. Of course, responsible hunters aren't taking shots at game at those distances, but the point is what can be accomplished and the lessons to be learned when the limits are pushed.

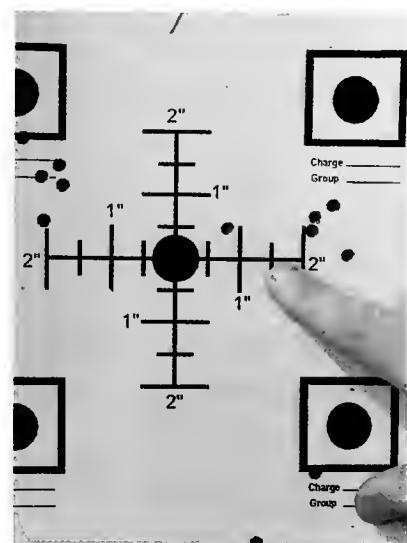
In the next issue I'll discuss some other tips on dominant eye selection, sight preparation, trigger control, follow through and others. Good shooting.

*For Kroil, contact Kano Laboratories at 615/833-4101: 1000S. Thompson Lane, Nashville, TN 37211.*



**"...I noticed that, as he fired, the recoil and his movement in reloading/chambering, caused his front rest to worm its way forward."**

**Consistency is one key to accuracy; the hold, sight picture, trigger release — all must be consistent to eliminate wandering shots.**



# SPOTS



## BEFORE OUR EYES

STORY AND PHOTOGRAPHY BY PETE V. COOPER JR

*Spotted bass are found from the Ohio River system south to Gulf coastal states. They are found in Louisiana statewide, especially abundant in deep pools of moderate or large size in flat bottomed streams.*

**A**utumn is the time for excellent fishing for Louisiana's "other" bass. The trail winds down the hill from the shoulder of the road, passes beneath the old, rickety wooden bridge, and ends at the edge of a small, clear river. The man standing there surveys the sparkling downstream waters for a moment, realized they are still too brightly lit by the westering sun for the fish to be actively feeding there, and decides to try the partially-shaded run above the bridge. He enters the stream, flinches from the shock of the water's chill, beats his way across the current to the far bank, and slowly wades upstream.

At the tail of the run he begins to cast. The fly line unrolls smoothly — gracefully — across the slower water there and drops the fly softly onto the dark surface of a shoreline eddy. In total concentration now, the man watches the fly as it drifts back toward him, gives it an almost imperceptible twitch with the rod's tip and sees it vanish in a great, gulping swirl. It is a very good fish — quite acrobatic and strong from a lifetime spent in

flowing water. No, it is not a high-mountain trout, as someone who has either seen or read *A River Runs Through It* might perceive; it was a spotted bass, and it — and the river from which it was taken — was right here in Louisiana.

Prior to the introduction of the Florida-strain largemouth, the spotted bass (*Micropterus punctulatus*) was Louisiana's "other bass." While it is inherently a river-fish — just like a high-mountain trout, it easily adapts to a lake environment, and in both settings it is found throughout much of the state. Yet even in those lakes with sizeable populations of these fish — Caddo, Bistineau, Bruin and Toledo Bend, for instance—they are usually ignored. Most are taken incidentally to other species.

Basically, that is because they have their own niche in these waters which is quite dissimilar to that of the largemouth — the main reason they co-exist so well. Crawfish comprise a great part of a spot's diet. Since crawfish live on bottom, that's where you will find them most of the time.

They also prefer a firmer substrate than largemouths. Sand or pea-gravel is ideal and that often occurs in areas with sparse subsurface vegetation. And they are usually found in water which is a bit cooler, and therefore deeper, during much of the year than that in which most anglers fish for largemouths. Simply put, you won't catch many spots while vertical jigging for suspended fish in hydrilla beds, or flipping 7-inch plastic lizards into the "donut" within the grass surrounding a single cypress tree. You will catch them on deep-running crawfish-like, rattling crankbaits — or small jig-and-pigs — bumped across a hard bottom in the lake's cooler depths. Of course, nothing in fishing is absolute; there are exceptions to that primary method, and those are what have caused the spotted bass to become my favorite Louisiana freshwater gamefish.

In long ago days when I "didn't know any better" I used Devil's Horse Dancers to catch big spots on cool, dreary, early-April mornings and bright, winey October afternoons on Lake Bistineau's Pin Oak flats: super stuff! And I have often bitten off the plastic worm I'd been working around shallow cypresses, tied on a Bayou Boogie, and caught them along the tree-line drop-offs that define the rim of Bossier Slough on that same wonderful lake — a haven for both the native largemouth and the spotted bass. And yes, I have caught them in surfacing

schools of largemouths, white bass, and yellow bass which were attacking shad in the open waters of Jeems Bayou and Big Green Brake on Caddo and in Bossier Slough and Gregg Lake on Bistineau: wild times with Gay Blades and Mitey Minnows! But for all the fun and games that spotted bass have given me on our lakes, they are simply unbeatable in our waters which flow.

In case you are unaware, there is a lot of flowing water in Louisiana. While some waterways are typical of the rather sluggish, somewhat turbid and often tepid "bayous" associated with our state, others are quite like the small, free-flowing rivers of the Ozarks and lowland Appalachians: lively, almost tap-water clear and quite cool. Almost without exception they hold populations of spotted bass and during autumn they, and the bass, are at their best.

There are several reasons why. First of all, autumn is the dry season hereabouts; therefore run-off and its potential for discoloring the water is minimal, currents are slower and wade-fishing in suitable locations — my preferred method — is at its finest.

Another is that school is in session and several of the hunting seasons are open. Most of the local folks encountered on these streams during the warm months who were swimming, sand-bar sun-bathing or fishing are notably absent. During autumn, I frequently have a river — and its usually quite



**The fall months are an excellent time to fish for spotted bass in Louisiana as the streams are usually low and slow-moving.**

scenic corridor — all to myself. Finally, autumn is the time when the spotted bass supplement their normal crawfish diets with surface minnows and terrestrials; surface lures and flies often provide the best and most exciting action if they are worked in the proper fashion.

Although the current's force is a part of life for our river-dwelling spots, the fish position themselves within areas where they are not affected by the main flow. Any current "break" in water depths of roughly two to four feet is a potential "lie." A washed-out midstream snag, a tree or large limb fallen across a steep shoreline or an eddy in a pocket along the bank are prime spots — even more so if they are shaded.

If possible, the lure should be cast up-current of the target area to allow the flow to carry it along in a natural fashion. As it drifts, it should be retrieved with short, intermittent twitches or soft pops. Frequently, the first cast to a particular spot is the critical one and let me avow there will be no question as to when or if you just had a strike; a spot holds nothing back in its attack on a surface lure!


In the hardware department, Tiny Torpedoes are hard to beat in "shad" with

"G-Finish" or "frog." But as some of you might expect, I prefer to fish with flies on our small rivers during fall — it just feels like the right thing to be doing then. And it is productive! Size 4 yellow and black Peck's Poppers are all I usually need.

With them I have caught spots — and some very good ones, including a state record fly-caught fish, on such diverse waters as Bayou Dorcheat, the Comite River, and ... well, lots of others. I can't make it too easy for you, because they are fragile, "personal" places but you can find them all listed in the Louisiana Scenic Rivers booklet provided by the Department of Wildlife and Fisheries; contact Keith Cascio at 504/765-2334 to order your copy.

Then drop a note to the La. Dept. Of Transportation and Development at P.O. Box 94245, Capitol Station, Baton Rouge, La. 70804-9245, requesting the parish road maps for the parishes in which the rivers you would like to fish are located. They cost about a dollar apiece (all the Florida Parishes, Allen, Rapides, and Vernon are worth close scrutiny). Once you get it all together, do what I have done over the last 30-odd years: stick a couple of rods in the car, turn on a country-western radio station, drive and look. Remember, the downstream reaches of most of our rivers are wide, deep and slow; look upstream for the smaller, prettier and more-easily waded water.

While rivers which lie within national forest lands are entirely open to the public, the others are usually best accessed from parish or state-road bridge right-of-ways. Those are plainly shown on the maps. Enter and exit the stream-beds there, because while these waters are public, the lands adjacent to them are private and I sure wouldn't want anyone to be arrested for trespassing because of this article!

Whether on stream or lake, autumn is a fine time to fish for spotted bass. Try 'em; they are fun — especially on surface lures in a cool, clear, flowing river. In fact, I enjoy it so much that I frequently leave the saltwater opportunities which are literally in my backyard to make a three-hour drive to a certain little river in Washington Parish and fly fish for them. That should tell you something... 



An aggressive fish, spotted bass feed on crawfish. Bait recommendations include brown baits and if you can find them, the old, jointed floating wooden lures.

# FLOATING for SQUIRRELS



The American Heart Association recently reported that sighting a buck can increase a hunter's heartbeat from the normal 78 beats per minute to as much as 168 bpm. This can be dangerous for the physically unfit, they claim. So deer hunters (especially the elderly) really should condition themselves before the season.

I must be in excellent shape. My heart feels like it's going double the 168 bpm and I seem to be still alive. And I haven't seen a deer in nine months.

I'm looking at a tree rat. He's high in a towering cypress near Big Creek in the Bogue Chitto NWR gnawing on a cypress ball. He hasn't spotted my son Robbie and me as we closed the distance. We're both shuddering like on point.

You figure it out. Our backyard swarms with the little rodents. They frolic through every tree in the neighborhood. They scurry in front of our cars every morning. They dec-

imate my pecans and ransack the bird feeder. The only things they excite in our neighborhood are the cats. I often watch one of these wildlife predators stalking a squirrel from my porch. Their body language perfectly mimics that of their massive cousins we see on the Discovery channel. They're taut, tense, focused, excited. "The heck with that canned mush in my bowl," he seems to say. "These teeth and claws aren't for that. Time for the *real* thing. Time to act out the role nature programmed me for."

That cat's heart probably thumps double the normal cat rate too. Robbie and I know the feeling. Now we're in the same role as that feline. We're predators. This morning a squirrel represents prey, not a lawn ornament. We might have molars but we also have incisors. They're there for a reason. I can already see this squirrel alongside four or five others simmering in the thick broth of onions and sherry, with a touch of thyme

**STORY &  
PHOTOGRAPHY  
BY  
HUMBERTO  
FONTOVA**

Squirrel season coincides with the slowest current and clearest water and generally best conditions for float hunters in the Pearl River Basin.



and pepper. I can smell them. I can taste the white flavorful meat as we slurp it off the bones — ah, yes!

But first things first. He was still about 50 yards away and hadn't seen or heard us. "Not yet!" I hissed. Robbie was starting to shoulder the gun. Squirrels require an amazing amount of lead to bring down. I'd say more than a duck. And penetrating that tough hide requires more punch than penetrating feathers. I never shoot at a squirrel from further than I'd shoot at a duck. I rarely shoot them from the same range. They're a much smaller target that requires much more lead. I *hate* losing a wounded squirrel. It spoils the morning. A full choke is a must in my book. And I knew we could get closer, much closer.

We were almost cheating, drifting up on him silently and stealthily in a pirogue. The current, slow this time of year, was doing most of the work for us. This is an immense advantage, yet often overlooked by float hunters. When we first started hunting from a pirogue we rarely bagged any more squirrels than we would stalking on foot. Not that we complained. The scenery and sensation of float hunting made it worthwhile in itself. The relief from mosquitoes, spiders, heat, spider webs, stickers, snakes — all abundant in October — was another major plus.

But like I said, we bagged no more than on foot. At the time we did what most people do in a canoe or pirogue — we paddled. We paddled like we were in a hurry to get somewhere, which we certainly were not. This just sped up the panorama. The tupelos with their bulging trunks studding the shallow

pools and sloughs, the water oaks dropping their sweet mast with plunks for the wood ducks and thuds for the deer, squirrels and hogs; the stately cypresses towering over it all, the diamond backed water snake draped on a limb, colorful woods ducks erupting from our path — what's the hurry? Why speed through such a place?

Besides, the paddling motion and the inevitable thumps against the craft and the ripples in the water all alerted squirrels to our approach. We'd always bagged a few but they were usually running shots high in the branches.

We finally decided to let the current do the work of taking us to the squirrels while we concentrated on scanning the trees and occasionally dipping a paddle to correct our course. Our bag rose dramatically. And here today was another perfect example of why. No crunching of leaves to alert him. No snapping twigs. Just the low gurgle of Big Creek washing over the blowdowns and the rattle of a woodpecker nearby. We hugged the shore where a thin canopy of overhanging branches broke our outline and slowly closed the distance.

The bushytail was still duped. He'd just wrestled another ball from the end of the branch and was contently chomping away, his tail curled behind him. I nudged Robbie's shoulder and he brought up the gun. "Quick!" I'm thinking. "He'll see us any second!"...Yep. "Plunk" goes the dropped cypress ball into the water 10 feet in front of us.

And there goes the squirrel. He made one leap onto a nearby gum that was covered in trumpet creeper, ivy and muscadine vines. I knew we'd lose him in there. Fortunately, it was a thin branch and it took him a second or two to regain his balance. He started scampering for the trunk and was almost to the safety of the vines when — blam! A shower of leaves and we temporarily lost sight of him. Where?....."thump."

Man, that's a sweet sound to a squirrel hunter. And no rustling of leaves afterwards. He was dead. We beached the craft and went to retrieve him. The ground was littered with cypress ball cuttings. A slough about 10 yards away was covered in cuttings from tupelo mast. We were definitely hunting the right area this year. Not that we'd planned it that way. We float hunt regardless of good or bad mast, but we generally do better on bad

acorn mast years. And I'd heard the acorn crop was spotty in this area.

For us, low acorn mast actually simplifies the hunting. With acorns scarce the squirrels seek other mast — things like cypress balls and tupelo berries. This means they concentrate in the wetter areas where these trees grow and where we can often float up on them. Man, we're brilliant. But like I said, we'd be floating whether it was a good or bad mast year. There's always enough water oaks overhanging the streams.

The squirrel was a nice plump one, his mouth sticky with cypress resin. The hind legs and backstrap were intact. Robbie learned to shoot on Teal. He knows how to lead, even on a squirrel. "Perfect" I beamed as I handed it to him for his admiration. "We need three or four more for a meal. Let's go." The morning was young. It was also cool, still and dry — simply delightful.

As I settled in the pirogue with a grunt, something smacked the surface of the slough on the other side splashing the trunk of a Tupelo. "See that Robbie." I pointed. "Probably a bass. We'll get 'em on the way back upstream."

We had two ultralight spinning outfits on board. Squirrel season coincides with the slowest current, clearest water and generally best conditions for fishing in the Pearl River Basin. We generally float downstream while hunting. Then paddle and cast our way back up in the late morning. But nothing frantic. We paddle slowly against the light current, occasionally pausing along the bank for a sandwich and a drink and more casts. You just can't beat it for a fall morning. If it coincides with one of those early fronts that drop morning temperatures into the high forties or low fifties the effects are genuinely intoxicating.

We hadn't floated another hundred yards when Robbie suddenly shouldered his gun and pointed towards the top of an immense water oak. "What?...I don't see....." "blam! The shot, coming unexpectedly, almost jolted me out of the pirogue. Then I saw the squirrel falling. He hit a branch on the way down, another, then thumped solidly at the base of the tree. "Way to go!" I roared.

Robbie beamed back. "He thought he was hiding, Dad!" He gushed. "He was up on that branch spread out. But I could see his tail. Didn't you see him?"

"Why sure...um, SURE, I saw him," I stammered. "I was just waiting to see when you'd spot him. Heck, he was plain as day up in that tree." Robbie's beaming smile turned into a smirk. He knew better. There was a day when I could spot them that way.

By 9:15 we had another three on board. It was time to unlimber the spinning outfits and start working our way back upstream.

Robbie's third retrieve stopped 15 feet in front of the pirogue and a chunky spotted bass sprung from the water in all his gill-rattling glory. "You saw that!" he squealed. "You saw the size of him!"

My friends, there are worse ways to spend a crisp fall morning.

Almost 80,000 acres of prime hardwood bottomlands straddle the Pearl River from right above Sun, La. in the north to right above La. 90 at the Louisiana-Mississippi border in the south. And it's all public hunting. The Pearl River WMA makes up the bottom 35,000. Just north of it lies the Bogue Chitto NWR. With most timberland in deer leases, clearcuts or both, this stretch marks the last stronghold for the serious squirrel hunter in southeast Louisiana. Look at a map and you'll see it was designed by nature with float hunters in mind. The place is a labyrinth of sloughs and bayous between major streams.

*(Note: Hunting from a motorized boat while under power is illegal. No sweat, I say. Turn it off, lift it and drift with the current.)*



A spotted bass wraps up a morning of float hunting and fishing for this young outdoorsman.

# Louisiana Lures and Legends

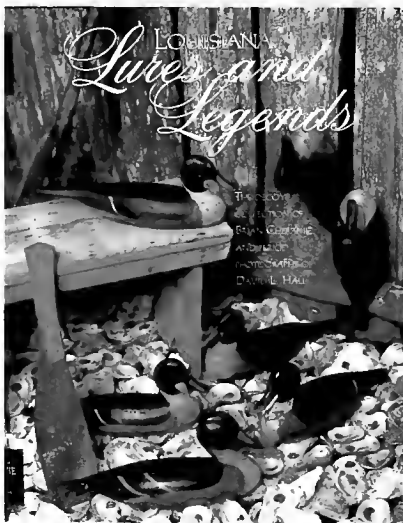
## REVIEW ARTICLE

BY LYLE M. SONIAT, PH.D.

**T**wisted, yet smooth to the touch, the carved cypress decoys offer a unique glimpse into Louisiana's past. To some, the weather worn creations served purely a functional purpose; to bring passing flights of waterfowl close enough for hunters to get better shots. For Brian Cheramie and Dave Hall, these icons of Louisiana folkways have a far deeper meaning.

Close to the source, Cheramie grew up on the banks of Bayou Lafourche in Golden Meadow. Hall is a Mississippi transplant and former U.S. Fish & Wildlife Service Game Warden. They have teamed up to publish a well written account of a way of life almost forgotten.

*Louisiana Lures and Legends* is a nicely bound volume that goes far beyond the typical book on such subjects. Carefully blending history with a variety of images, the authors have crafted a fine tribute to the decoys and the way of life they represent. The images are a entertaining blend of recent photographs of decoys, vintage pictures of carvers and hunting scenes and various maps and *Harper's Weekly* pen and ink drawings from the turn of the century.



This is not a book you will quickly leaf through. It's one to enjoy -- to dawdle over -- to carefully digest the images of decoys and their carvers. I found myself going back to earlier pages, comparing the styles and differences of the birds. As Cheramie notes, "Each bayou had its own distinct culture -- the Acadians, the Germans, the Houmas Indians, the Canary Islanders -- each put their talents to making the decoys unique."

It was the bayous, corridors through difficult swamp and marsh terrain, that helped maintain the unique carving detail for which each region became noted. The north-south fingers -- bayou byways -- helped spread the work of the carvers up and down the waterways, while also preserving the east-west variances of different cultural communities.

The research by Cheramie and Hall, combined with their cultural links and insight, and blended with their respective backgrounds, has given the book a depth and breadth not easily accomplished through research alone. Hall -- despite that fact that, as a game warden, he arrested some of the people described -- came to respect those in his adopted home. "I valued the way they lived ...they wasted little...they cared about the resource, it was just a matter of perspective. Once I explained the reasons for game conservation, they understood. Acceptance was an evolution on both sides."

The book includes many delightful anecdotes about the effect of numerous events on decoy carving, including hurricanes, floods, the Great Depression, market hunting, sport hunters, and drought. Through it all, the authors describe the work of "masters" with an obvious reverence. As Cheramie states, "This is my heritage -- I'm not into this project for the money. Shoot, it's taken almost 30 years to complete it -- I want to focus on the talent of the carvers." And so they live in the best tradition. Contact the REM Corporation, Post Office Box 608, Golden Meadow, Louisiana, 70357-0608. Tel 1-800-256-2238. A great gift idea. 🐾





# INDIGO

## Louisiana's Living Legacy

STORY & PHOTOGRAPHY BY GARY NOEL ROSS, PH.D.

**V**iolet. Azure. Lilac. Cerulean, mauve and royal blue. All are shades of indigo, the world's most ancient, most stable and most highly prized natural dyestuffs. Indigo dyed textiles were at times so costly that they were reserved for royalty and considered a signature of noble birth. Although manufactured in laboratories today, the "King of Dyestuffs" is still the most frequently used dye throughout the textile industry. After all, who does not admire the blue of Levi Strauss & Co.'s ubiquitous "blue jeans?"

Besides being an important dye of textiles, indigo has been used as a paint, a cosmetic, and an astringent for cleaning wounds. So highly prized was the dye that its true origin was a carefully guarded secret for centuries. As late as



The indigo plant can be found in Cameron Parish, Louisiana. It displays pea-like flowers and seed pods. (top photo) The dye is found throughout the feathery leaves and stems, shown in the plants next to Dr. Ross. (bottom photo)

1705 European dye makers believed indigo to be a mined mineral.

Although most Louisianians are familiar with the state's modern agricultural produce, including timber, cotton, sugarcane, rice and soybeans, many are not aware that between 1763 and 1806 colonial Louisiana was a major producer of the so-called "mystery dye." In fact, at the end of the 18th century, indigo was the colony's number one export and therefore responsible for some settlement patterns and political alliances. With such a colorful (I couldn't resist the pun!) history, just what is indigo?

The dyestuff indigo is produced from several species of plants of the same name. Historically, however, only two tropical, bushy and perennial types have proven commercially successful: *Indigofera tinctoria* of the Old World and *Indigofera suffruticosa* of the New. Both belong to the legume family and display pea-like flowers and seed pods. The dyestuff is found throughout the small

feathery leaves and green stems. Preparation is complex. The plants are cut during early morning hours to maximize moisture, bound, and then submerged in large open vats (concrete or wooden) exposed to the sun. The plants ferment in the warm water throughout the day and evening hours turning the water murky. After bubbling ceases (usually in the wee hours of the morning), the solution is "beat" with large wooden pallets to introduce oxygen, giving the fluid a characteristic rich blue color. Ash from wood fires or mucilage from a variety of plant species is then sprinkled into the aerated fluid to induce precipitation, a process that separates sediment from solution. Later, the relatively clear fluid is drained into a lower tank and eventually discarded. The blue residue, with the consistency of pudding, is scraped from the primary vat, placed in the sun for several days to dry and finally cut

into bars ("cakes") for subsequent marketing.

But there is more. The cakes are not the actual dyestuff. Another round of processing is necessary. Indigo, like most dyes, must be dissolved in water before the pigment can impregnate fiber and indigo cakes are insoluble in water. To prepare the actual dye bath, the indigo cakes must be pulverized and then added to a vessel (the "blue vat") containing a water based alkaline solution. Bran, madder (an herb), iron compounds, potash, lime, soda, and even aged human urine do nicely). Placed in an undisturbed and dark site for several days, the indigo powder ferments, turning the solution the color of untarnished copper. The indigo pigment is now water soluble. To dye, a fabric is submerged for a few minutes and then lifted into the air. As if by magic, the fabric gradually assumes the royal blue color before your very eyes. Once again, the pigment becomes water insoluble and virtually indestructible.

Exactly when human beings first learned to utilize the attributes in *Indigofera* is lost in prehistory. Certainly the technology dates back millennia, probably having evolved independently at several different times and in several different cultures.

The seafaring French and Spanish imported indigo from India. Because of the great distance involved and because European markets were seemingly insatiable, traders were always on the lookout for new sources. The discovery of the New World with its untold riches, including *Indigofera suffruticosa*, became one of the pivotal points in history. Indigo plantations were immediately established in Mexico, Central America, the West Indies and in what is now the southeastern United States--chiefly Louisiana and South Carolina. With an endless supply of slave laborers, business boomed. The colonies became self-sufficient, colonists and traders became wealthy, and European haute couture reached a new high.

But all good things come to an end. In the early 1800s, historical chronicles from Louisiana indicate that exceptionally wet growing seasons coupled with attacks by uncontrollable insects brought indigo production in the state to a virtual standstill. Furthermore, the indigo plants were susceptible to a rust blight (fungus) and the disease easily transmitted to the fledgling colony's primary food crop, wheat.

# Seasons Greetings from the Louisiana Conservationist



## **Louisiana Conservationist Commemorative Knife Limited Edition**

The *Louisiana Conservationist* is celebrating 75 years of continuous publication by offering a collector's edition, custom-made knife by Louisiana knife maker Michael Sanders. Since the magazine's first issue in January 1923, the *Louisiana Conservationist* has been part of Louisiana's wildlife and fisheries heritage.

Now our readers have a chance to share that achievement.

Each knife is serially numbered and engraved with the magazine name and Department of Wildlife and Fisheries logo. The blade is made of 440C high carbon stainless steel which holds a sharp edge, yet resists tarnishing when used. The handle is carved from India Sambar stag antler.

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*Louisiana Department of Wildlife and Fisheries*



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## Louisiana Conservationist Commemorative Belt Buckle

Heavy solid brass adorned with the *Louisiana Conservationist* logo, commemorating its 75th year. Available in three styles: solid brass, turquoise inlay and red coral inlay. One size only (2" x 1 1/2")



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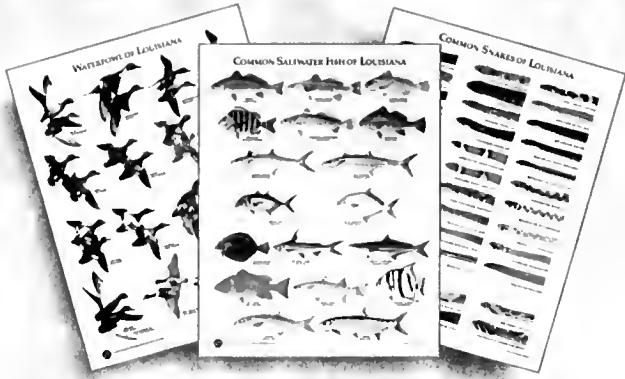
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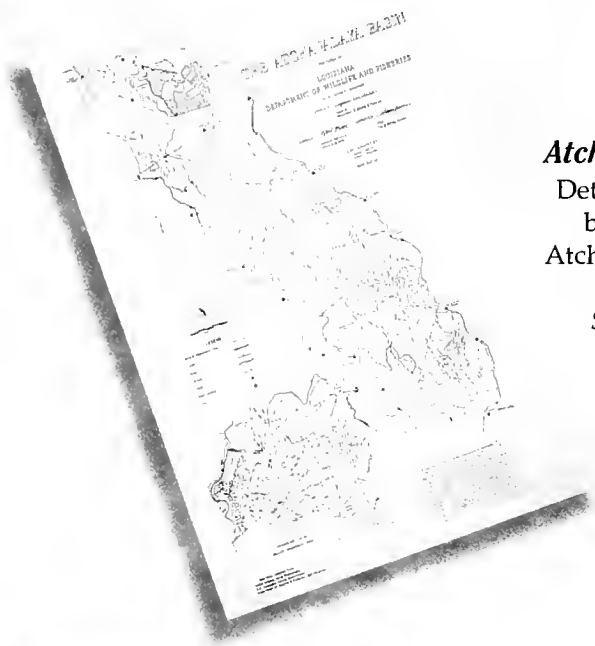
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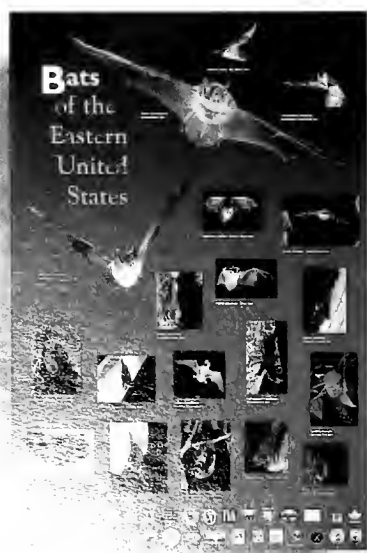
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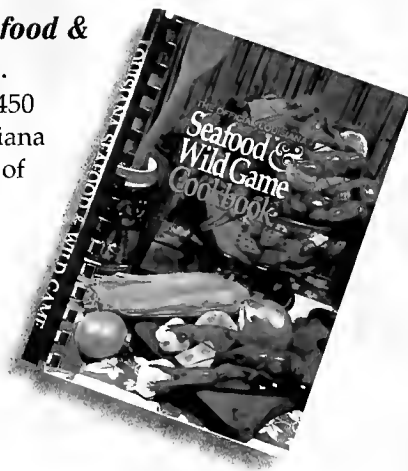
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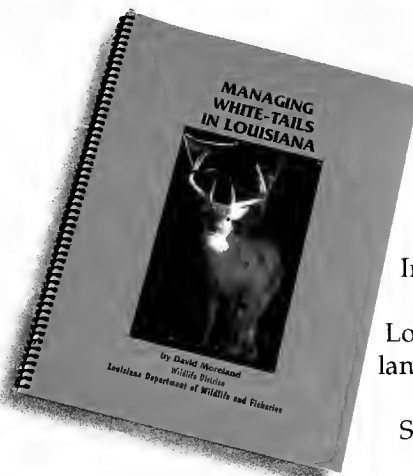
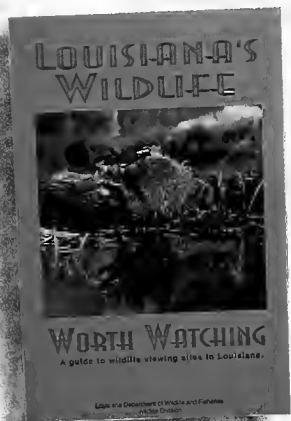
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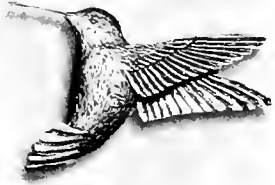
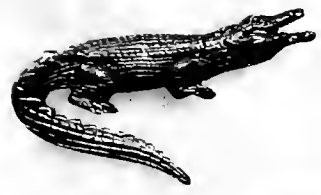
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204 Shark	333 Eagle	527 Crawfish
207 Striped bass	342 Pelican	530 Lobster
209 Tarpon	345 Great blue heron	531 Crab
211 Speck (weakfish)	350 Hummingbird	532 Shrimp
217 Swordfish	351 Dove	570 Tiger Swallowtail
219 King mackerel	360 Horned owl	571 Luna moth
222 Flounder	361 Snowy owl	590 Frog
227 Redfish	372 Blue jay	591 Tree frog
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2nd choice _____	Tax (4% for Louisiana residents)	_____
3rd choice _____	Additional 4% tax for EBR Parish residents	_____
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**Commemorative knife orders cannot be shipped in time for Christmas delivery due to the time involved to handcraft these limited items.**



Other archives paint a more sinister portrait, however. Some historians claim that the dye producing process “killed fish in streams,” “repulsed livestock,” and was so “disgusting and disagreeable” that it “on average killed every Negro (slave) employed in its culture in the short space of five years.” As reinforcement, a historical novel set in El Salvador states that “For over four centuries the process of fermenting and precipitation . . . had been turning the area’s inhabitants yellow, Tubercular. Cancerous.”

Production of indigo in Louisiana ceased about 1806. Then in 1878 a German chemist synthesized from coal tar the first artificial dye mauve in color. A new era in commercial dye production was launched. The “King of Dyestuffs” soon became lost in antiquity and a new monarch, “King Cotton,” began to reign throughout the South.

But the past is not necessarily dead history. Consider the following. In recent decades Westerners have once again become enchanted with natural fabrics and, of course, natural dyes, also. To take advantage of this renaissance, several international corporations are currently producing natural dyestuffs, including indigo, to satisfy the new burgeoning markets. Additionally, Louisiana citizens are having their memories tweaked by the U.S. Department of the Interior. The recently established Jean Lafitte

National Historical Park and Preserve (six separate units located in New Orleans, Chalmette, Marrero, Lafayette, Thibodaux and Eunice) and the still-to-be-established Cane River Creole National Historical Park in Natchitoches will bring history to life by showcasing the state’s rich cultural heritage. Not only will rangers discuss indigo production but plans are underway to actually cultivate the plants in demonstration plots.

I have had more than a cursory interest in indigo for many years. As a professional field biologist I recall seeing indigo plants thriving in cattle pastures and along fence rows throughout several regions of the state, including Cameron and Natchitoches Parishes. (I initially identified the plants with a botanical field guide.) I assume that the plants owe their origin to ancestors whose seeds escaped cultivation more than 100 years earlier and, finding favorable habitats, continued to thrive. Interestingly, local folks do not recognize true indigo plants although they do ascribe the name or its French equivalent, *café sauvage*, to a variety of native legume species, including several that are pioneering pests in rice fields and whose seeds are readily consumed by birds—especially doves.

Too, I am a collector of Native American textiles, particularly from Mexico and Guatemala. This avocation has afforded me numerous opportunities to visit with cultures carrying out traditional weaving and dyeing practices. For example, the Zapotecs of Oaxaca, Mexico still cultivate (albeit on a

These photos show two steps in processing indigo dye. The photograph on the left, is the fermenting process in which the plants are submerged in warm water throughout the day. The photograph below is the beating process where oxygen is introduced and the characteristic blue color begins to take place.





The blue residue from the beating process is scooped out and set in the sun to dry. (above photograph) After the pigment is water soluble, fabrics or yarns can be dyed by submerging them for a few minutes and then lifting it into the air for the blue transformation.

small scale) and employ indigo or *anil* as one of their basic pigments used in their tapestry art. (Incidentally, spent indigo plants from the fermentation vats are routinely fed to pigs with no adverse effects.)

My research indicates that wherever indigo is currently used there is no indication that the practice fosters disease. Obviously, the historical snippets from Louisiana and El Salvador seem to clash with present day practices. Could this ostensible mystery be solved?

In 1991 I returned to Cameron Parish to interview aged residents whose Cajun ancestors had first settled in the coastal prairie. I learned that because of the region's isolation, the pioneer families had to be self-reliant. One could assume that this included weaving and dyeing cloth. Several Cameron citizens could actually recall such stories told them by their parents or grandparents. However, no one could recall precisely what the dyes were and if they were associated with any illnesses.

I then decided on a different approach: to consult with research chemists and to peruse the chemical literature in the library of Louisiana State University. After hours of discussions and reading I discovered that there is considerable information on commercial indigo production. For example, no toxic products are known to be created during the synthesis of the commercial dye. But the dye produced "naturally," from *Indigofera* plants is another matter. Because of complicated procedures involving numerous materials at least seven similar but distinct complex chemicals result. Of these, one, "indigo yellow", is known to be mutagenic, that is, it tends to increase the frequency of genetic mutation or change, and therefore, could initiate cancerous conditions. Furthermore, because the processing of indigo is so involved (remember those steps of fermentation, oxygenation and precipitation), it is not unreasonable to theorize that additional chemicals still unaccounted for could be created. These too, could be mutagenic and, although present in only minimal concentrations, could with

long term exposure to skin and lungs be cumulative and hence, eventually catastrophic.

I conclude that the most logical interpretation of the evidence traversing centuries of time across multinational borders is as follows:

American indigo plants, *Indigofera suffruticosa*, in themselves are harmless and entirely safe to grow. In fact, the feathery leaves and small, bunched pink flowers make the plants attractive as a potential new landscape species. Furthermore, the cottage production of the dye as practiced, for instance, in Mexico, and that was most likely carried on by early homesteaders in this country, is harmless. However, the large-scale plantation preparation of the product as engaged in by the Colonials most probably did prove hazardous and often fatal to those employed directly in its manufacture. In Louisiana, indigo may have been "King" but it was an ignominious ruler.

Indigo is used in many ways. Below is an example of a rug with indigo-dyed yarns woven into the design.



# HOOKING UP

## With the Right Charter Captain

STORY  
& PHOTOGRAPHY  
BY  
JOHN N. FELSHER



Jamel and Jackie Norvell wanted to do something different during their south Louisiana vacation. The Oklahoma City couple

wanted to experience offshore fishing, but didn't know how to go about it. A chance encounter in a coastal eatery proved fortuitous. They met a local man who recommended Wade Guidry, a captain for *Just Hook It* charters in Cut Off.

"I had fished four days in a row and was looking forward to a day off," Guidry said. "They wanted to fish and had never been offshore, so I agreed to take them out."

On the first cast with his net, Guidry caught about 200 porgies for bait. He headed offshore to the rigs south of Fourchon.

"At the first spot, we limited out on eight to 10 pound snapper in about an hour," the captain said. "I said let's go look for a rip; maybe we'll find some big cobia. We traveled about eight miles and ran across the biggest grass bed I have ever seen. I knew something was going to be in that grass."

Guidry immediately hooked a large cobia with a jig and let Jackie fight it. Jamel dangled a live porgy and landed an 80-pound cobia after an extensive battle. "It makes me feel good that people from out of state would have such a good time," Guidry said. "She said she couldn't wait to get back home to tell her neighbor."

Lucky as anglers and customers, they had fortunately encountered someone who knew Guidry had the right equipment and knowledge. Surely, if they return, they'll hire Guidry again, or send friends to him.

Unfortunately, many visitors to Louisiana run into self-proclaimed captains seeking quick bucks. Anyone with a boat can call himself a captain here and take fishermen for short, even



**A 25-pound king mackerel comes on board a charter boat in the Gulf of Mexico.**

illegal trips at high prices. Customers return home with empty wallets and bad memories. They tell friends to avoid Louisiana.

To avoid rip offs, U.S. Coast Guard Lt. Jimmy Duckworth, an investigator for the New Orleans marine safety office, stresses that potential customers examine the captain's credentials.

"People should remember two things," the lieutenant said. "Anyone taking anyone out on the water for hire must have a current Coast Guard license on display or within easy access on the vessel. If the vessel carries seven or more people, the vessel must also have a Coast Guard certificate of inspection, or COI. Ask the captain to see the license and COI. He should be proud to show you."

A Coast Guard license proves that person demonstrated minimum knowledge of seamanship in that particular class vessel. Getting one presents challenges, Duckworth said.

To apply for a license, a person must prove at least one year of "sea time" in that type boat if operating less than 12 miles from the coast. To operate more than 12 miles from shore, the Coast Guard requires two years of sea time.

Next, the prospective captain must submit to an evaluation. This pre-test evaluation costs \$65. That price does not include a mandatory drug test, which could cost about \$45, Duckworth said.

If the evaluator believes the applicant possesses sufficient documentation and experience, the would-be captain then takes a battery of written tests covering seamanship, navigation, first aid, safety and other nautical topics. Testing may take a half day or more and costs \$80.

If the person passes all tests, he obtains the license, after paying \$35 for administra-

tive costs. Then, the owner must allow the Coast Guard to inspect any boat capable of carrying seven or more passengers.

To operate in Louisiana, a charter captain must then obtain a Wildlife and Fisheries license. This costs from \$250 to \$2,000, depending upon the boat and captain's resident status, said Maurice Cockerham, LDWF Information Manager.

Having a captain's license tells customers this captain went to considerable trouble and expense to operate boats for hire. However, it doesn't tell anglers how the captain treats customers or finds fish. Unfortunately, no such documentation exists.

"In Louisiana the guide industry is still in its infancy, but starting to come of age," Danny Duet said. "Maybe someday we'll have a sport fishing commission that can say who is good and who is not, but right now all we have is word-of-mouth."

Word-of-mouth kept Duet and his brother Toby in business for more than 20 years. Specializing in speckled trout and redfish, they operate Marshland Enterprises in Galliano with Bud Angelette. Over years, they have built a reputation for treating customers right — and finding fish. By Duet's estimate, about 95 percent of their 2,500 annual guests are repeat customers. About 80 percent come from out of state.

"If you do something good to a person, it multiplies 100 to 150 percent," Duet said. "If you bring a customer fishing and he has a good time, not only fishing, but everything, he tells his friends and it multiplies. You never know who that person knows."

Word-of-mouth works in two directions. People suffering bad experiences also tell friends. Word spreads quickly. Many people never overcome a tarnished reputation. "If you do something bad, it multiplies 250-300 percent," Duet said. "Bad news always trav

Potential customers should invest a little time and money in telephone calls before paying big bucks for an expensive fishing trip. They should call local tourist commissions, chambers of commerce or better business bureaus to find out what guides offer what services in a particular area.

The free LDWF Fishing and Hunting Guide list holds excellent information about guides and services. All guides listed must possess a current Coast Guard license if they take customers in boats. To obtain the list, write to: Department of Wildlife and

Fisheries, Information Manager, P.O. Box 98000, Baton Rouge, LA 70898, call (504) 765-2917 or e-mail cockerham\_mn@wlf.state.la.us. DWF does not make recommendations. Potential customers must still do research.

Danny Duet suggests asking for references. Most captains will give potential customers telephone numbers of two or three people who have recently fished with them. Call them up and ask about their experience.

"The only way to find out if somebody is good or not is to find somebody who went with them," Duet said. "It's kind of a hit or miss thing."

"If you know anyone who fished a particular area, contact them and ask them for their opinion," Toby Duet said. "Find out their impression of the area and get any input on guides."

Lt. Duckworth recommends visiting the boat whenever possible. At the boat, ask to see the license and inspection papers. Ask to see safety equipment like life jackets, flares, horns, radios, etc.

Frequently, anglers cannot visit a vessel before booking a trip. In these cases, they should telephone the captain to find out his experience and expertise. Potential customers should ask about the boat and equipment. They should also ask "what if" questions like "What if I become sick 40 miles out in the Gulf." Most reputable captains gladly and proudly answer such questions.

"Speak directly to the captain, not the booking agent or the captain's family," Duckworth said. "Make it clear that if he doesn't have current valid licenses, the trip is off. The best thing to do is trust your instincts. If you get a bad feeling on the telephone, find another captain."

Potential customers should pick captains who specialize in the desired quarry. An angler shouldn't hire a guide who operates an 18-foot boat and throws ultralight tackle at speckled trout if he or she desires to fish for wahoo. Make sure the equipment — and captain — fit the task.

Captains and customers must discuss and agree upon requirements and arrangements. For instance, some captains provide all food, refreshments and equipment. Others provide nothing except a boat and knowledge. Some guides pick up customers. Others request to meet at boatside. Find out first.

A captain possessing all required docu-

ments and a reputation for finding fish still can not guarantee catching whoppers. Most people realize that fish sometimes bite and often don't. Weather can wreak havoc on even the most carefully planned trip.

"The most important thing is to have a good time," Duet noted. "If you are going to pay money to fish, you want a guide who is thinking about you, whether for catching fish or fixing refreshments. Anybody can go fishing and catch fish without having fun. It's important to have fun."

Customers also have responsibilities. They shouldn't arrive with bad attitudes, knowing that if they don't catch a state record they will become angry. "You don't judge a trip by how many fish you caught," Duet continued. "That's why God put tails on fish; they move! We've had people who were really buttheads when they arrived on Friday. When they left Sunday, they weren't buttheads any more. After two or three days, you'll see a frown when it's time to go home because they don't want to leave."

"A lot of time people understand when we don't catch a lot of fish," Guidry said. "That's just fishing. Sometimes they can be disappointed if they don't catch fish, but as long as you treat them to a good time, tell them stories, make them comfortable and give them the whole fishing experience, they'll understand."

People having bad experiences can call the nearest Coast Guard marine safety office or the LDWF. If the captain does something illegal, they take action. However, if a captain is simply a jerk, customers can do little except tell others not to hire him.

**R. J. Gisclair fights a red snapper near an oil rig in the Gulf of Mexico.**



# CADET TO ENFORCEMENT OFFICER

Photo By Sr. Agent Darryl Moore



BY  
JANICE COLLINS

*A wildlife and fisheries enforcement cadet's day starts early with grueling and intense physical and intellectual challenges.*

It's 5 a.m. Reveille sounds. Before it fades, eight pairs of running shoes have hit the floor for a three mile run. The 1997 class of law enforcement cadets starts another challenging day on their way to becoming Louisiana Department of Wildlife and Fisheries enforcement agents.

The oldest statewide law enforcement effort agency (yes, the oldest) boasts a nationally acclaimed training curriculum containing instruction on everything from first aid and firearms training to officer survival, investigatory techniques, wildlife and fish identification and community relations. The curriculum also includes a strenuous physical workout every morning consisting of a three to six mile run and at least one hour of calisthenics.

The environmental differences in the wildlife enforcement effort, as compared to traditional municipal and state police functions, determine the type of training enforcement cadets must undergo, explained Lt. Col. Charles Clark of the LDWF Enforcement Division. A wildlife agent must be trained to easily operate out of a boat, ATV, airboat, aircraft or jet ski.

"If a person applies for this job thinking 'I'll hunt and fish for a living,' they're in for a big surprise," says Clark.

According to Lt. Joey Broussard, supervisor and coordinator of the training program, to become a wildlife enforcement cadet, candidates must have two years of full time law enforcement experience or 60 semester hours of college. A candidate must successfully complete a stringent two-part interview process. "Applicants are interviewed to determine aptitude and background experience," he said. "Ninety percent of the applicants are eliminated during this first phase."

Those who are brought back for the second phase must demonstrate basic outdoor skills and physical abilities. The Cooper Physical Fitness Standard is used to measure potential cadets' endurance, agility and strength. Candidates must attain a 20 percent level.

If a cadet is accepted into the training academy, an intense and arduous training session begins which can run from 21 to 26 weeks depending on weather conditions, students' abilities and scheduling.

The training is divided into two sessions. Nine weeks are spent at the Louisiana State Police Training Academy where cadets undergo POST (Police Officer Standards Training). During the POST training, cadets are trained in criminal justice, legal issues,



first aid, firearms, investigations, traffic services, patrol and specialized activities, officer survival and police community relations. POST certification is a requirement for all law enforcement officers in Louisiana.

The second training phase is based at LDWF headquarters in Baton Rouge. During this phase cadets acquire actual field experience. A typical week will have cadets at Rockefeller Refuge in Cameron Parish learning duck identification. At least two weeks of boating safety instruction take place at False River. There cadets are trained in navigation, boat operation, boat accident investigation, and search and rescue.

A week of training at Grand Isle and Grand Terre provides training in fish identification and saltwater enforcement patrol boats. It is during this week that cadets become very knowledgeable about state and federal laws affecting fishing, shrimping, crabbing and oyster harvesting in state and federal waters.

"Another significant difference between wildlife enforcement training and other enforcement agencies is that our agents must be very conversant in the state and federal laws that apply to the Gulf of Mexico," said Clark. "Our agents routinely enforce regulations associated with the Marine Mammal Protection Act and the Magnuson Act. This requires considerable knowledge of the federal judicial system and of the resources being governed," stated Clark.

All terrain vehicle training, map and compass familiarity and hunter safety training take place on the Sherburne Wildlife Management Area in the Atchafalaya Basin. Here the cadets stage night stops, stake outs and surveillance scenarios.

Back in Baton Rouge, the cadets will continue with classroom instruction on fire fighting, public speaking, radio communications and water survival. A course on wildlife forensics instructs cadets in blood identification, time of death, evidence gathering and photography.

The cadets will complete a three day class on Standard Field Sobriety Testing and four and a half days of Intoxilyzer 5000 training. "Upon graduation the cadets will use this training to help identify intoxicated boat operators," said Clark. According to Clark, 50 percent of all boating accidents involve alcohol impaired boaters.

It is imperative that an enforcement officer be very familiar with the legal system

because many hours may be spent in a courtroom dealing with arrests or citations. Cadets are trained in courtroom procedures, case preparation and coordination with the district attorney, defense lawyer, judge and witnesses.

While in Baton Rouge the cadets are exposed to a wide range of department knowledge concerning conservation efforts on behalf of fish and wildlife. Technical staff explain the principles supporting management practices and how enforcement regulations play a vital role in the success of management programs.

"History tells us that some people will always refuse to obey fish and wildlife regulations designed to perpetuate resources. It will be the job of new cadets to prevent individuals from literally stealing our resources," said Broussard. "The importance of the job that enforcement agents perform is echoed daily to cadets at the academy."

Training wildlife and fisheries enforcement agents demands a substantial investment on behalf of the Department. After training and equipping these men and women, the first year's cost is approximately \$50,000 per cadet. Uniforms, guns, four-wheel drive vehicles, and boats, are all necessary tools that allow agents to accomplish assigned duties.

"Each enforcement agent is responsible for patrol of an area covering 270 square miles," reported Clark. "And most of that area is rural wooded land or open water which requires special equipment and expert operation."

The job of a wildlife and fisheries enforcement agent demands knowledge of the outdoors, of the fish and wildlife of the State and of the various user groups that participate in the activities governed by the department. That knowledge is put to use in apprehending violators, rescuing victims of boating and hunting accidents and educating Louisiana's public in wildlife and fisheries management and conservation.

Those cadets who graduate from the Wildlife and Fisheries Training Academy earn the privilege of serving the public and protecting the state's valuable natural resources. Upon graduation, each cadet will have the comprehensive knowledge required to become a professional LDWF Enforcement Agent.



LDWF File Photo

**All terrain vehicle training takes place at Sherburne Wildlife Management Area in the Atchafalaya Basin.**



Photo By Sr. Agent Darryl Moore

**Cadets begin the day with calisthenics at the Rockefeller Wildlife Refuge in Cameron Parish.**



**"BILLFISH, BILLFISH, BILLFISH!** A marlin's chasing our baits — **GET EVERYONE ON DECK NOW!**" screams Capt. Jack Payne. Spinning back from the helm, you could see Payne race to the stern, jerk the center line rod from the holder and begin to reeling in line like a maniac. "She's coming in close, get ready."

Our crew needed no further enticement. In a mad dash, every man onboard the *Jumping Jack* stumbled into the cockpit as a hungry 300+ pound blue marlin repeatedly launched itself completely out of the water, hot on the tail of a black and purple Wooley Booger Sugar Pop. Just 15 feet aft of the stern the enormous billfish finally catches the bait on yet another fantastic jump and sounds with its prize. It was one of those surreal, once in a lifetime moments...but it

wasn't destined to last.

"Did you guys see that?" shrieks an exhilarated Payne as he viciously whips the rod tip high, grinding on precious mono with each down stroke. At that moment, Mr. Murphy (as in Murphy's Law) decided to grace us with his presence. Just as we clear the remaining lines and stowing the rods, the marlin rockets to the surface. The massive fish, desperate to throw the bait, lunges out of the water in a large circle for nearly 30 seconds until its bill finally finds the 50 lb mono. In the end, all we have to show for our efforts is a hundred feet or so of badly frayed line and yet another "Fish Story."

"No big deal," Payne says with a smile, "We'll just go catch another one"

The next day, Payne hooked two more blue marlin.

Marlin enthusiasts have got to be the most curious of all anglers. For many, their priorities are "misplaced." While many blue water anglers long for ice chests full of yellowfin, mahi mahi (dolphin fish) and a few wahoos, most serious billfisherman could care less if they bring back a single fish to the dock. That's a pretty incredible outlook considering the amount of money spent each season in pursuit of these top pelagic predators.

In fact, nearly every serious billfish enthusiast deliberately trolls artificial baits that a) attract billfish, and b) tend to cull out unwanted fish like mahi mahi, the nemesis of the billfishing community. Most marlin enthusiasts are careful, relentless perfectionists and have a deep respect for the sport. If fact, at present, the tag and release of any Louisiana billfish is not only practiced, it is very nearly a requirement for acceptance into the billfish community.

The most frequently asked question in billfishing is, "What makes one angler better than the next? Is it the boat, the baits, the way you fish the boat and baits?" The answer is probably a combination of all three. Famous billfish enthusiasts like W.J. Barnhill routinely tag quality billfish each season. Barnhill and his son Brain started off with a bang this year onboard their new 44-foot *Topaz High Risk* when Brain caught a 712 lb. blue marlin. Pat and Scott Williams of the 46-foot *Hatteras Nautical Nut* have already released three marlin. Same for Stephen Goldware on the 65-foot *Hatteras Placebo* and Capt. Jack Payne of the 32-foot *Newton Jumping Jack* has already hooked eight marlin this year.

Of course, there is always the Cinderella story of some angler who, with little or no billfishing experience, lands a monster marlin in record time like a seasoned pro. Example: the recent prize fish caught by angler David Pippin. Along with partner Clarence "Bubby" Reuther III, he landed a 917 lb. blue marlin onboard their 50-foot *Topaz Miss Orleans*. That's the fourth largest blue marlin ever landed in the Gulf of Mexico. Understandably, Pippin's fish is now being considered for the new Mississippi state record and \$100,000 in prize money that was offered by the Mississippi Gulf Coast Billfish Classic for anyone beating the state record.

For insight into the mysterious world of

# Billfish Battle Ground

STORY AND  
PHOTOGRAPHY  
BY  
RICHARD HUSSER

## ...are some guys just lucky?

billfishing I interviewed Herb Wallace, President of Wooley Booger Lures manufacturer of some of the Gulf coasts most productive and popular billfish baits. Wallace's Sugar Pop and Baby Doll marlin baits are a cherished favorite among Louisiana's top anglers.

"Be patient" explained Wallace. "If you want to be successful at billfishing, you have got to put your time in. There is no way around this. The single thing successful billfisherman have in common is confidence. Confidence in their boat to raise fish (yes, some boats do better than others), confidence in their ability to rig and troll baits properly and confidence in the baits themselves.

Speaking of raising marlin, here are a few points most skippers seem to agree on:

1. Marlin favor a low frequency disturbance in the water, i.e., the low roar of a diesel engine in a Bertram will raise more fish than a gas powered Wellcraft. The higher pitch of the gas inboard simply turns off more fish. The guy running twin outboard Yamaha on a big center console can and will catch marlin, but his chances are even less.

2. Throttle settings are also key. One boat might show marked success in raising fish with the engines perfectly "in sync" (both engines are run at exactly the same r.p.m.), while another boat might have more success in setting the throttles to slightly different speeds. The guy on the center console with twin outboards actually might fare better by running only one engine, but he'll have to run that one engine harder to reach proper trolling speed. The faster an outboard runs the higher frequency the engine will emit. It's a difficult choice.

3. Although certain hulls appear to show markedly superior fish raising capabilities, more often than not the guy running the boat is responsible for the boats success. Capt. Tred Barta, an individual who holds several world records for marlin on light-tackle, works diligently to fine tune his boats to what he calls the "magic hum." In short, he believes that, to raise fish consistently, you must observe and reduce the variables of how you fish to "fine tune" the boat. Unfortunately it takes hundreds of hours trolling to fine tune a boat—but that's marlin fishing.

An example of a boat that raises fish might be the *Miss Orleans*. Pippin and Reuther

caught their 917 lb. blue marlin with almost no billfish experience, but had a lot of training from Capt. Kevin Frelich (formally of Strike Zone Charters).

Probably the most important consideration is: concentrate in areas that hold bait. When you troll for marlin, you always need to be looking for anything that could possibly attract baitfish. I believe where you find baitfish in Louisiana waters, you'll find marlin. Even if you don't hook up right away, you need to work those areas well. If you find a pocket of baitfish, you can expect something to eventually take your bait. When you get a combination of thick weedlines and bait, you've got prime billfish conditions."

"You must remember," continued Wallace, "The fishing conditions here are quite different from anywhere else in the world. In waters say, off south Florida, marlin tend to linger and feed near the Gulf Stream because it is the most significant structure they have. Here, we have all kinds of structure so you gotta be smarter to catch em'. Think about it, a Louisiana marlin might have several opportunities to feed in a single day, as opposed to marlin in other areas that have far less structure.

A few tricks of the trade are: approach a weedline with a following sea if possible. Most bait fish swim with a following sea. Trolling in heavy seas, slow down to 5-7 knots. If the seas are calm, troll a little faster. Depending on how much white water your wheels make, adjust your baits till they swim just behind the turbulence. Use baits that are similar in size and color. However, for your center line bait, always go with something that is distinctly different than the rest of the baits in your spread. Trick the marlin into believing they are chasing a small group of baitfish. They will usually go for the most conspicuous individual in a school.

Finally, a standard trolling spread is as follows: starboard outrigger at 175-feet, starboard flatline at 125-feet, center line at 200-feet, port flat line at 100-feet and the port outrigger at 150-feet'. This is one of my favorite trolling spreads. The color skirts I use are simple: dark colors for overcast days and bright colors for bright sunny days. The baits won't tangle if you advance the throttles slightly on a turn (always a problem for me). 🐟



**The single thing successful billfishermen have in common is confidence...in their boat, in their ability to rig and troll baits properly and in the baits themselves.**

# WILFLETS

Dobson, Michael  
 Amedee, Adnrew  
 Aucoin, Michael  
 Barker, Gaylyn  
 Barker, Harry  
 Becnel, Jonathan  
 Boudreaux, Mark  
 Bulet, Roy  
 Carbone, Thomas  
 Creighton, Walter  
 Dauzat, Chad  
 Duplantier, Thomas  
 Dupuy, Adam  
 Ford, Lance  
 Fritze, George Jr.  
 Guidry, Paul  
 Harrington, Michael  
 Jenkins, Joshua  
 Johnson, Joseph  
 Lawson, Turner  
 Leake, Alvin  
 Martin, William  
 McClure, Robert  
 Melancon, Julie  
 Mitchell, Mark  
 Morvant, Jody Jr.  
 Morvant, Thoams  
 Oehler, Devin  
 Ordoyne, Michael  
 Ordoyne, Stephen  
 Paulk, Brandon  
 Payton, Robert  
 Pitre, Ryan  
 Price, Matthew  
 Prima, Gordon  
 Riley, Jon  
 Roussel, Brett  
 Rownd, William  
 Shea, Charles  
 Smith, Gabriel  
 Smith, Jeshua  
 Steinmuller, Charles  
 Stephens, Kevin  
 Sutterwhite, Stacey  
 Vampran, Kenneth  
 Vampran, Travis  
 Vampran, Trevor  
 Veillon, Edward Jr.  
 Wagner, Dale  
 Watts, Brian  
 Weber, William  
 Harrison, Charles  
 Arnold, Nicholas  
 Be, Robert  
 Bergeron, Gregory

Mandeville  
 Thibodaux  
 Kenner  
 Lafayette  
 Lafayette  
 Vacherie  
 New Iberia  
 Cutoff  
 New Iberia  
 Natchitoches  
 Marksville  
 Lafayette  
 Baton Rouge  
 Abbeville  
 Shreveport  
 Belle Chasse  
 St. Martinville  
 Pineville  
 Lisbon  
 Laplace  
 Slidell  
 Dubach  
 Minden  
 Luling  
 Sulphur  
 Pineville  
 Pineville  
 Ponchatoula  
 Thibodaux  
 Thibodaux  
 Forest Hill  
 Cutoff  
 Cutoff  
 Deville  
 New Orleans  
 Urania  
 Schriever  
 River Ridge  
 New Iberia  
 DeRidder  
 DeRidder  
 Baton Rouge  
 St. Rose  
 Pierre Part  
 Prairieville  
 Prairieville  
 Prairieville  
 Eunice  
 Bogalusa  
 Tallulah  
 Jefferson  
 Jarreau  
 Crowley  
 Baton Rouge  
 Waggaman

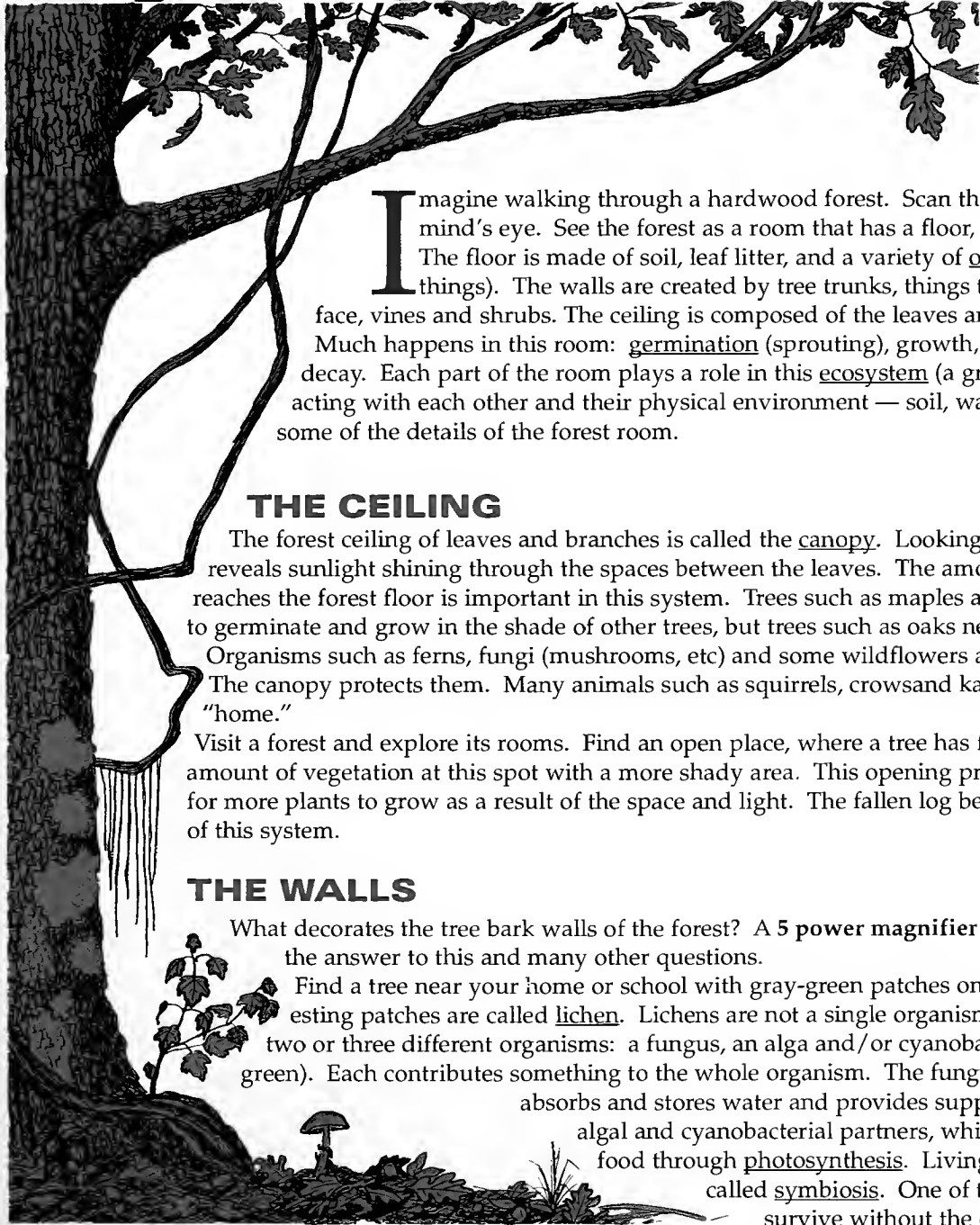
Boone, Anthony  
 Boone, Jeffrey  
 Burnham, Thomas  
 Chauffe, Kevin  
 Coleman, James  
 Coston, Cody  
 Dugas, Jay  
 Dunn, James  
 Ellinwood, M. Chad  
 Giglio, Joseph  
 Godchaux, John  
 Godchaux, Josh  
 Gonsoulin, Robert  
 Gorman, David  
 Haygood, Bolling  
 Henry, James  
 Hoover, David  
 Jones, Scott  
 Keating, Leroy  
 Landry, Jessica  
 Landry, Keith  
 Lirette, Joshua  
 Long, Clifford  
 Lorenzen, Michael  
 Maddox, Dinah  
 Maddox, Clyde Jr.  
 Marsh, John  
 Marx, Jeffrey  
 McClung, Paul  
 McDonald, Rodger  
 McMichael, Collin  
 Michelli, Gasper Jr.  
 Michelli, Patricia  
 Morgan, Richard III  
 Moses, Richard  
 Nicholson, Harriet  
 Nicholson, Jerry  
 Oney, Larry  
 Panepinto, Frank Jr.  
 Parks, Brandon  
 Paulk, Keith  
 Pitre, Dennis  
 Province, Brandon  
 Reed, John  
 Richard, Henry  
 Rutledge, Kathleen  
 Seal, Danny  
 Serio, Erik  
 Simon, Charlie  
 Smith, James  
 Southerland, Hunter  
 Thorne, Neil  
 Weeks, Brandon  
 Wilkes, Brody  
 Wilson, Martin  
 Zer, John

Angie  
 Angie  
 Zachary  
 Lafayette  
 Ruston  
 Greenwell Springs  
 Pierre Part  
 Lecompte  
 Slidell  
 Shreveport  
 Lafayette  
 Lafayette  
 New Iberia  
 Baton Rouge  
 Baton Rouge  
 Harahan  
 Livingston  
 Covington  
 Metairie  
 Hessmer  
 Thibodaux  
 Chauvin  
 Slidell  
 New Orleans  
 Des Allemands  
 Des Allemands  
 Tallulah  
 Lafayette  
 Homer  
 W. Monroe  
 New Orleans  
 Harahan  
 Harahan  
 West Monroe  
 Glenmora  
 Metairie  
 Metairie  
 LaPlace  
 St. Amant  
 Raceland  
 Forest Hill  
 Baton Rouge  
 Lacombe  
 Iowa  
 Houma  
 New Orleans  
 Iowa  
 Slidell  
 Metairie  
 Eunice  
 Mandeville  
 Monroe  
 Gray  
 Kentwood  
 Shreveport  
 Baton Rouge

# LOUISIANA NATURE INVESTIGATOR

BY AMY OUCHLEY AND GAY BRANTLEY

## Exploring the Forest Room



Imagine walking through a hardwood forest. Scan the landscape with your mind's eye. See the forest as a room that has a floor, walls, and a ceiling. The floor is made of soil, leaf litter, and a variety of organisms (any living things). The walls are created by tree trunks, things that grow on their surface, vines and shrubs. The ceiling is composed of the leaves and branches of trees. Much happens in this room: germination (sprouting), growth, reproduction, death and decay. Each part of the room plays a role in this ecosystem (a group of organisms interacting with each other and their physical environment — soil, water, air). Let's look at some of the details of the forest room.

### THE CEILING

The forest ceiling of leaves and branches is called the canopy. Looking up through the canopy reveals sunlight shining through the spaces between the leaves. The amount of sunlight that reaches the forest floor is important in this system. Trees such as maples and dogwoods are able to germinate and grow in the shade of other trees, but trees such as oaks need more light.

Organisms such as ferns, fungi (mushrooms, etc) and some wildflowers are also shade-tolerant. The canopy protects them. Many animals such as squirrels, crows and katydids call this area "home."

Visit a forest and explore its rooms. Find an open place, where a tree has fallen, and compare the amount of vegetation at this spot with a more shady area. This opening provides the opportunity for more plants to grow as a result of the space and light. The fallen log becomes part of the floor of this system.

### THE WALLS

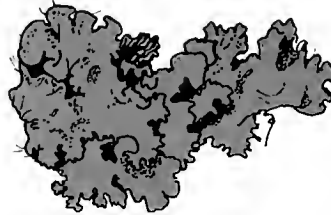
What decorates the tree bark walls of the forest? A **5 power magnifier** will help you discover the answer to this and many other questions.

Find a tree near your home or school with gray-green patches on the bark. These interesting patches are called lichen. Lichens are not a single organism but a partnership of two or three different organisms: a fungus, an alga and/or cyanobacterium (cyano = blue-green). Each contributes something to the whole organism. The fungus (non-green organism) absorbs and stores water and provides support and protection. The algal and cyanobacterial partners, which are green, supply food through photosynthesis. Living together like this is called symbiosis. One of the organisms cannot survive without the others.

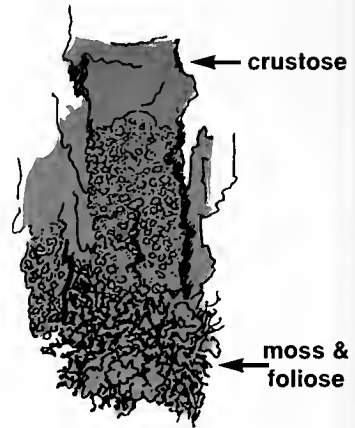
Lichens come in three different forms: fruticose, foliose and crustose. What do you think of when you say these words? Crustose lichen grow like a crust on bark and rocks. They are destroyed if removed from their location. Foliose lichen are leafy like foliage. Fruticose lichen look like hairy branches with fruit. The three forms are easy to find and learn. Green mosses are often found beside lichen.



fruticose



foliose



You might have to leave the city to find lichens, because they are sensitive to air pollution. Lichens absorb chemicals in the environment and their absence may indicate dirty air.

## The Floor

Crunchy, dry leaves or soft moss may carpet the forest floor. Skinks and other lizards, spiders, salamanders, toads, box turtles and many kinds of insects can be found here.

The forest floor is a place of decomposition. Everything from above eventually falls to the floor and breaks down. This is an important part of the forest room, because it's where nature recycles nutrients and minerals.



Remember the fallen tree. A rotting log is an interesting thing to explore, because many organisms live here. Although the lichens did not hurt the tree when it was alive, they will help it decompose by retaining moisture. This dampness helps more things to live here. Wood-eat-

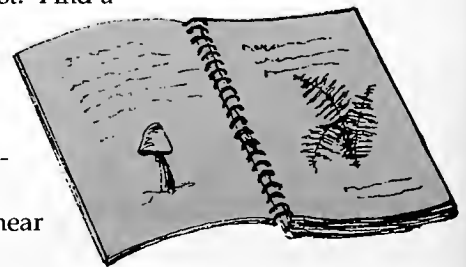
ing insects like termites bore into the tree. Fungi invade the log and cause it to become weaker. Beetles and snails hide beneath the bark of the tree as it becomes loose.

After this variety of organisms works several months, the log will become soft and spongy. Slowly, every part of the tree is reused by some organism. After several years the log will disappear, but in its place will be a patch of fertile soil. Seedlings will grow in this humus. Find a rotting log and search for new growth around it. Pick up a handful of humus to smell the rich, earthy smell. A rotting log is a prime example of nature's economy ... nothing is wasted; everything is recycled.

## A Nature Journal

Now is a good time to start a nature journal to record your discoveries. Take a small notebook, pencil and colored pencils when you visit the forest. Find a quiet, cool spot and record your thoughts and observations. You can add a sketch or write a short poem. Be sure to record the date of your visit and the location in your journal.

Write to us and share some of your discoveries and creations. Our address is: Amy Ouchley and Gay Brantley, Route 2 - Box 364, Farmerville, LA, 71241. We'd love to hear from you. Have Fun Nature Investigating!



# LAW LINES

## Behind the Badge

BY MAJ. KEITH LACAZE

### Wildlife Enforcement Dive Team

As the muddy waters close overhead, he is instantly enveloped in a dense brown cloud. With several deep breaths through a regulator and an effort of will he overcomes the combination of claustrophobia and vertigo brought on by the lack of visual or tactual input. With depth comes increasing pressure in the form of sharp pain in the ears, remedied by "clearing" as he was trained to do. Cold water seeps into the wet suit and causes him to shiver uncontrollably for a few seconds until his body heat can remove the chill.

He finally touches bottom and experiences a moment of involuntary revulsion as he feels the mushy slime of sediment. No clean sand bottom here but that was no surprise. Reaching down he grabs a set of gauges and brings them up until they touch his mask. At that distance he can just barely see the depth reading of 20 feet. He then checks the line leading from his left wrist to the line tender in a boat on the surface. With a series of tugs he signals that he is on the bottom, is "okay" and about to begin a search pattern. He takes some comfort in knowing a rescue diver sits suited up and ready near the line tender and would be at his side within seconds should he signal for help.

Now he begins the sweeping search pattern which he hopes will lead quickly to this latest drowning victim and end the sad vigil held on shore. So goes another recovery operation for a member of the La. Department of Wildlife and Fisheries Enforcement Dive Team.

The Wildlife Enforcement Dive Team is a unit composed currently of seven wildlife enforcement agents from

throughout the state. They spend many hours beneath the murky waters of Louisiana's bayous searching for evidence tossed from violator boats, recovering drowning victims or doing underwater repairs and inspections.

Agents who volunteer for this elite team must demonstrate exceptional swimming abilities in order to be accepted. They must then complete training through the level of Divemaster. The training begins with Open Water I which is a beginner's level SCUBA course. All basic diving skills and equipment assembly and handling are learned at this level.

In advanced training the diver must participate in several deep water dives. Underwater navigation, and the skills involved in handing off equipment from one diver to another are learned in this phase of training. Following advanced diver training the team member must then select and successfully complete two underwater specialty courses.

Most team members select dive rescue and light salvage and recovery as their two specialties since most dive jobs involve these skills. In dive rescue, divers learn to recognize causes of dive related accidents and how to handle emergency situations. Light salvage teaches the methods, equipment and complicated physics used to raise objects from the bottom.

The final and most difficult level of training is divemaster. During this phase of training the diver has to perform physical skills such as a 400 yard free style swim in less than 10 minutes, towing an injured diver in full gear for 100 yards while giving him CPR, treading water for a total of 15 minutes and an 880 yard swim with snorkel, mask and fins in less than 12 minutes. Additionally in the divemaster course the diver must develop leadership skills and learn dive site assessment, dive planning and diver evaluation.

During each phase of training the member has to successfully complete all written test and assist with students in beginner levels of training. Once divemaster has been completed the diver attends additional classes in first aid, adult and child CPR, oxygen administration, black water dive tech-

niques, underwater crime scene preservation, photography and search and recovery techniques. All phases of training require deep and black water dives.

Each member of the team is outfitted with a complete set of dive gear, including buoyancy compensators, wet suits, dive tanks, mask, fins, snorkels, weight belts and underwater search lights. Additional equipment includes a utility trailer fully equipped for use at land based dive sites. The trailer contains additional dive tanks, a generator, flood lights, ropes, safety gear and replacement parts.

Dive Team Members are: Sgt. Pete Bordes, Senior Agent Byron Cammack, Sgt. Brian Clark, Maj. Keith LaCaze, Senior Agent Shawn McRae, Senior Agent Carla Rachal, Senior Agent Len Yokum and Senior Agent Doug Wild.

In the past seven years the team has accomplished many missions. They have recovered the victims of many automobile, boat and swimming accidents. Important evidence in wildlife and fish violations has been brought to the surface. The team has also recovered stolen goods in evidence searches requested by other law enforcement agencies. In addition, divers have saved the department a great deal of money in underwater repairs by clearing obstructions from the propellers of the large offshore patrol boats, eliminating the need for costly dry docking.

With plans to increase the number of team members and continued training and preparation, the Wildlife Enforcement Dive Team stands ready to get the job done beneath the surface of Louisiana waters.



LDWF File Photo

# notes

## CONSERVATION

### Hunting and Fishing Day

Saturday, Sept. 27, 1997, has been proclaimed Louisiana's National Hunting and Fishing Day, and everyone is invited to attend activities at four Louisiana locations in recognition of the vital role sportsmen play in conservation. Admission and all activities are free.

The Department of Wildlife and Fisheries sponsors events at four locations: Minden, Monroe, Natchitoches and Baton Rouge. The Baton Rouge event takes place at the Waddill Refuge located on Flannery Road, the state's first urban refuge. This will be the 13th year celebrating Hunting and Fishing Day in Baton Rouge.

LDWF Minden district staff members started the event in Louisiana 18 years ago, Monroe district office personnel began organizing three years later and the folks in the Natchitoches district office are working on their fifth event.

For more information on National Hunting and Fishing Day celebrations, call 318/371-3050 for Minden events; 318/343-4044 for Monroe activities; 318/487-5885 for activities in Natchitoches; and 504/765-2496 for details about Baton Rouge festivities.

National Hunting and Fishing Day was originally established in 1971 and today is celebrated in all 50 states.

### Department Takes to the Airwaves

Outdoor enthusiasts can tune in a new Department of Wildlife and Fisheries radio program beginning in September. *Louisiana Wild* provides up-to-date information on the latest fishing, hunting and other outdoor

activities across the state.

The Department of Wildlife and Fisheries and radio station WJBO (1150 AM) in Baton Rouge began airing the hour-long program on Sept. 4 at 8 p.m.

Topics scheduled for the fall include hunting seasons, bow and musket hunting, freshwater and saltwater fishing, endangered species, trophy lakes, boating issues and various wildlife conservation management programs. The program will provide a weekly update of safety and training classes and information on wildlife management areas for public use.

Phone lines will be open for listeners to call in questions and comments during the broadcast.

### Quail Unlimited Chapter Makes Donation to LDWF

The Northwest Chapter of Quail Unlimited (QU) donated a 10-foot farming disc for use in quail management at the Jackson-Bienville Wildlife Management Area (WMA.)

The equipment, valued at \$6,000, will be used to prepare the soil to plant supplemental food strips such as millet, sorghum and peas on approximately 100 acres of land throughout the 32,000-acre WMA.

### Conservation Officers Graduate

Eight conservation officers assigned to five Louisiana coastal wildlife refuges graduated from the Department of Wildlife and Fisheries' Law Enforcement Training Academy in Baton Rouge Wednesday, June 11. They are the first conservation officer class to graduate from the academy and the first to hold the newly created positions within LDWF's Enforcement Division. All eight transferred from LDWF's Fur and Refuge Division to fill the new positions.

Graduates are: George Briolo, Kaplan; Remy Broussard, Bell City; Lonnie Campbell, Kaplan; Keith Delahoussaye, New Iberia; Samuel Gonzales, Gonzales; Ross M. Mire, New Iberia; Layne Picard, Abbeville; Ivan Vaughn Jr., Kaplan.

### Hunters Win Shotguns for Check Station Support

Three hunters won Remington 870 Turkey Express shotguns for their contribution to the management of wild turkeys in Louisiana during the 1997 hunting season. The names were picked in a drawing held during the Wildlife and Fisheries Commission meeting on June 6. The firearms were donated by the Louisiana chapter of the National Wild Turkey Federation.

Winners Bruce Hunt of Franklinton, Wade Pullig of Athens and Gerald Walter III of Baton Rouge qualified for the drawing by checking their turkeys at voluntary weigh-in stations during the 1997 turkey season.

The Department of Wildlife and Fisheries developed the voluntary weigh-in program in 1986 as a method to help track the harvest and health of Louisiana's wild turkey population.

Hunters weighed in 1,395 birds during the 1997 season, an increase of 117 from last year. An estimated 12 percent of the harvest during any given year is checked at these locations.

### Four New Inshore Artificial Reefs Completed

Four recently completed artificial reef sites are now open for fishing. Two were placed on the Pointe au Chien Wildlife Management Area (WMA) in Lafourche Parish and two in Cote Blanche Bay in St. Mary Parish.

Two reefs on Pointe au Chien WMA are located over the Sulphur Mine in the Timbalier Bay estuary between the towns of Pointe au Chien and Galliano. The reef sites measure approximately 100 feet by 400 feet and are adjacent to the main channel in the southern end of the Sulphur Mine from which Bayou Bouillon emanates. Water depth over the reefs ranges from five to seven feet.

Two other artificial reefs were created in Cote Blanche Bay. Two acres of fossilized shell were placed at Rabbit Island and at Nickel Reef in the Atchafalaya Basin. The Coordinates for these reefs located near Marsh



Island are latitude 29°30'34", longitude 91°33'52" and latitude 29°35'10" and longitude 97°42'27" respectively.

All four reefs are the culmination of several years of planning, coordination and actual site work. Shell for the reefs was made available as mitigation from ongoing shell dredging activities in Cote Blanche and Atchafalaya Bays. Each reef used approximately 7,000 cubic yards of shell.

**Enforcement Agents  
"Make-a-Wish" Come True**

When Make-a-Wish Foundation of Louisiana volunteer Barbara Wortman called LDWF's Wildlife Enforcement Senior Agent John Bernard for help, she got three times what she'd expected. Not only was Bernard willing to pitch in to make 4-year-old Nathan Warner's wish come true, he recruited Sgt. Michael Bonner and Sr. Agent Marcus Constance to help.

Nathan's wish was to have a big playhouse in his backyard to share with his 7-year-old brother Stephen and his 3-year-old sister Kate. His parents, Kyle and Penny Warner of Natchitoches, asked the Make-a-Wish Foundation for assistance and the

three wildlife agents came to the rescue.

The agents worked on the playhouse in their spare time with materials provided by the Make-a-Wish Foundation. In June, Nathan's wish was a reality in the form of a huge playhouse complete with twin towers, a rope ladder, connecting tube and slide.

**Commission Action**

The Wildlife and Fisheries Commission was busy in August. Actions of the seven-member board include:

-A 60-day and six-duck waterfowl season. This decision comes in the wake of news that a fourth year of excellent waterfowl production yielded a record number of breeding ducks and fall flight.

-Creel and size limit for black bass in the Atchafalaya River Basin and Lake Verret/Palourde Complex will stay at 10 fish and 14 inches minimum total length. Opinion surveys indicate the majority of bass anglers support these regulations, in place since Hurricane Andrew.

-Muzzleloader season for deer in

southeast Louisiana will open two days (Oct. 6) later to avoid conflict with the opening of squirrel season.

-Either-sex deer hunting will be allowed in portions of Caldwell, Catahoula, Concordia and Franklin parishes designated as Representative District 20. Call the Wildlife Division (504/765-2346) for the exact area.

**LOWA Gives Awards**

The Louisiana Outdoor Writers Association (LOWA) named the Fish of the Year and honored three teenagers for their expertise in journalism.

Naming "Doc" Kennedy's 50-pound, four-ounce red snapper "Fish of the Year" was an easy decision, according to LOWA president Bill Ford. Kennedy, a retired Grand Isle charter boat captain, caught his champion in June 1996 in 60 feet of water south of Fourchon. His catch beats the previous state 39-pound record red snapper.

Chad Ellenwood, 17, Nicholas Arnold, 14, and Jessica Landry, 14, were the winners in the second annual LOWA Youth Journalism Awards. Ellenwood wrote a poignant article about hunting and fishing with his grandfather and Arnold's winning essay detailed a deer hunt. Landry won for her photograph of men fishing in a small boat beneath a towering cypress trees.

Each youngster received a plaque and a Louisiana lifetime hunting and fishing license.

LOWA is a professional organization composed of writers, broadcasters and other communications professionals.

**Louisiana Conservationist Helps Find Kids**

Missing: Sherreyia Pelt. DOB: 11/16/91. Missing from Montezuma Creek, Utah. Sex: female. Race: American Indian. Height: 3'9". Hair: black. Eyes: black. Anyone knowing the whereabouts of this child should call the Navajo Division of Public Safety at 505/368-4383 or the National Center for Missing and Exploited Children at 800/843-5678.

LDWF File Photo



LDWF Wildlife Enforcement senior agents John Bernard and Marcus Constance and Sgt. Michael Bonner join Nathan Warner in front of his Make-A -Wish playhouse.

# GO WILD



**in  
the**

# CLASSROOM

is an opportunity for individuals, companies and organizations to donate a four year subscription of the Louisiana Conservationist to the school or classroom of their choice for only \$30, tax deductible.

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WC



### Squirrel Stew

Season with salt and pepper 8 or 10 squirrels, shake in paper bag with enough flour to coat squirrels well.

In a large pot heat 2 cups vegetable oil, fry squirrels until lightly browned, and remove to another container, and hold in 150 degree oven while making roux.

Toss flour remaining in bag in pot, stir and cook until brown. Finely chop: 2 bell peppers, 4 onions, half bunch celery, 1 bunch parley, 2 bunches green onions and 8 cloves garlic.

Add squirrels and cover with water. Add enough Kitchen Bouquet to give stew a nice brown color and toss in 8 or 10 chicken or beef bouillon cubes. Salt and pep-

per to taste, add some red pepper if desired. Stir well and bring to a boil, lower heat to simmer and cook for about 5 hours.

Serve over rice along with a tossed green salad and hot French bread. Serves 15.

### Fiesta Bread

- 1/2 cup butter**
- 1/3 cup chopped ripe olives**
- 1 cup grated cheddar cheese**
- 1/2 cup green pepper, chopped fine**
- 1/2 cut catsup**
- 1/3 cut onion, chopped fine**

Mix the above and spread on French bread cut lengthwise. Run

under broiler for a few minutes or wrap in foil and heat in preheated oven or in barbecue pit.

### Sweet Potatoes in Orange Shells

- 4 sweet potatoes**
- 1/2 teaspoon cinnamon**
- 3 ounce Cointreau**
- 6 orange halves**
- 2 tablespoons butter**
- Salt and pepper**

Bake sweet potatoes until tender. Remove pulp and mash, add Cointreau, butter, cinnamon, salt and pepper. Beat until smooth. Remove pulp from oranges and fill with the potato mixture. Add marshmallows if desired. Bake at 400 degrees for 15 minutes. Serves 6.

